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Interregnum

THE continuing inability of the new Chairman of the British Transport Commission, General Sir Brian Robertson, to assume his duties means that nationalised transport is without the keystone of its structure at a time when with further organisational changes impending and with questions urgently needing answering, the need of such a head is most urgent. This is particularly the case with the railways, where the abolition of the Railway Executive has thrust on the Commission responsibilities in the management of British Railways which in any case would engage the individual attention of a central railway management. With British Railways one of the most urgent tasks is to work out the details of the interim organisation and the complex relationship between the Commission and the Regions, which obtain until the form of reorganisation under the Transport Act is decided—another major problem. The more immediate question of the interim organisation includes the very urgent one of railway staff appointments, urgent because the uncertainties resulting from the necessarily acting nature of many appointments during the past few months and as to the future of many other members of the staff, are having an adverse effect on efficiency. There are many other questions affecting the railways which must be settled; some of them, such as the

pensions scheme for wage grade railwaymen, affect also London Transport, and there are matters which must be settled in conjunction with others of the Commission's undertakings. The problem of capital expenditure on the railways, including future electrification, demands early attention, more particularly with the prospect of increased supplies of steel. Deliberation no doubt has been taking place on these and other questions, but until the Commission can function under its Chairman, there can only be uncertainty and lack of firm guidance.

Portuguese Railway Mission

RECENT extensive hydro-electric development in Portugal, in which British manufacturers have taken an important part, has aroused Portuguese interest in railway electrification. A direct result of this interest is seen in the Portuguese Government's decision to send a Mission of railway engineers to examine systems of railway electrification in this country and on the Continent. The Mission, which was led by Senhor Engineer de Brion, Technical Director of the Portuguese Railways and Chairman of the Electrification Committee of that system, arrived in this country on October 11 and returned to Portugal on October 18. Accompanying Engineer de Brion were Senhores Pinto Monteiro and Valerio Vicente, engineers on the staff of the Portuguese Railway Company, and Senhor Lino Neto, a nominee of the Portuguese Government. Visits in this country included the new 50-cycle alternating current electrified Lancaster-Morecambe-Heysham line, and the new electrified line which is being installed between Manchester and Sheffield. The recently-completed electrified line between Liverpool Street and Shenfield was also inspected. Discussions were instituted with British Railways and with principal manufacturers in Great Britain concerned with the supply of equipment for railway electrification.

Design for Production

THE report of the Anglo-American Productivity Team, which made an exploratory tour of American factories and production methods in 1952, has just been published. From the preamble it would seem that this country has very little to learn from the U.S.A.: the team reports "Rarely did we notice something good without at least one member of the team quoting an instance of a similar application in Britain," and continues, "there is no recommendation in this report that will be completely new to Britain." The report evaluates every procedure under a number of categories, and compares each one with its counterpart in Britain. It applauds the greater cohesion between management and employee in the United States, the adaptation of machines to fit the operator, more merging and overlapping of interests by departmental heads, industrial research and design, the influence of production on design, and economies essential to cheap but thorough production.

Unified Management in Uruguay

THE State Railways Administration in Uruguay has now been functioning for a little over a year, and the fusion of the two constituents, the former State Railways & Tramways, and the Central Uruguay Railway, is almost complete. The second group was the larger, with some 1,560 miles of line covering the greater part of the country, and comprised the railways of the former British-owned companies, the Central Railway Co. of Monte Video Ltd. and the Midland Uruguay Railway and associates, which were sold to the Uruguayan Government in 1948. The State Railways & Tramways system was composed of lines acquired or built by the State since 1915 and totalling 420 route miles. Almost all lines are standard gauge. Originally the new united organisation was intended to be a dependency of the Ministry of Public Works, which, as a provisional measure, was administering separately both the State and Central systems, but it was decided to take advantage of a change in the construction of the country and make it an autonomous body.

New Lines in India

THE present large amount of new railway construction in India contrasts with the relatively slow progress between the wars. With the exception of the completion of the Grand Trunk route between the north, Central Provinces, Hyderabad, and Madras, and the Raipur-Vizianagram link largely for manganese exports through Vizagapatam, construction was confined mainly to branches and cut-offs to open up undeveloped country, and then largely in Central and South India, though a great deal was done to improve existing lines. Economic depression caused the closure of some, including relatively new branches, before 1939, and thereafter the need for track in various theatres of war caused its removal from some branches. New developments in Western India are described elsewhere in this issue, but much is in hand in other parts, mainly on the metre gauge. Some of these lines are to open up undeveloped districts, and others, such as the branch to the new port of Kandla, and the Khandwa-Hingoli link, are caused by changes in traffic flows occasioned by Partition. The Government of India has ambitious plans for road development, but the need for transport of all kinds is so great that there is little danger of duplicating transport facilities.

Quicker by Rail

SHORT journey times with the possibility of a return trip in one day, and the comfort, meal facilities, and other amenities of travel on business by rail are the theme of recent British Railways Press advertising. In view of the present policy to raise the speed of passenger trains generally, rather than revive or create a few streamline or other ultra-high speed services, the fact that the current timetables make it possible once more to make quick transit a selling point of business travel shows the progress made in the last year or so in improving train services. The journey times quoted in the advertisements are not in some cases as short as prewar. Speed, however, is not overstressed. The times shown give reasonable opportunities for doing business away from home and returning in comfort the same day; and emphasis is on journeys up to a radius of some 250 miles, where, given journeys to airports and so on, it is, as suggested, "a deal quicker by rail," rather than on Anglo-Scottish and other longer journeys—where the railways can offer comfortable overnight travel.

Consolidation of Embankments

APART from the occasional use of high-pressure jets of water, the most common method of consolidating embankments is rolling layer by layer, either with a steel tamping or sheepfoot or with a pneumatic roller. The latter was originally with the pneumatic tyres of earth-moving plant, but now special types of pneumatic rollers have been evolved. Five years' experience has convinced the United States Corps of Engineers that earth fills can be consolidated with these specially-designed pneumatic rollers at about half the cost with tamping rollers. This reduction in cost results mainly from the saving in time, but there are other important advantages in using pneumatic rollers. Banks with a high percentage of rock and gravel can be consolidated in thick layers, without the rock having to be picked or raked out. Moreover, a wide range of both granular and cohesive soils can be consolidated with these rollers, and also those with a higher moisture content than is possible with tamping rollers. It is also possible to restart work after rain more quickly, as the pneumatic-rolled fill absorbs less moisture than a tamped fill, even if both have been rolled with a smooth roller to facilitate drainage before the rain.

Improving Track Standards in Tasmania

HEAVIER traffic and faster running on main-line services have caused the Tasmanian Government Railways to improve track standards and signal equipment besides constructing additional sidings and yards, already necessitated by increased traffic. Throughout the greater part of the

3-ft. 6-in. gauge system, the 63-lb. now is being replaced with the standard 82-lb. rail, to allow of heavier loading in goods and smoother running in passenger trains. Because of the extensive use of new motive power, both diesel-electric and steam, lubricators have been installed on some of the 5-ch. curves in view of the excessive wear on the inner rail resulting from the greater axleload. To permit regular checking of the condition of the track, a Hallade recorder is being acquired and delivery is expected very shortly. Meanwhile the Victorian Railways have lent one of their machines for track testing. Steps are being taken to improve the standard of ballasting; sleeper lengths have been increased, and double spring elastic spikes adopted. Special attention also has been given to drainage and provision made to increase the strength of gangs during the winter.

Heavier Traffic in the Sudan

DURING the past year, increasing traffic on the Sudan Railways has been moved with great difficulty, but the situation now is being eased by the arrival of 450 bogie wagons. These began to go into service in May. Nineteen steam locomotives have been delivered. The rise of traffic and the increase in the numbers of wagons will place a severe strain on the locomotives until the arrival of the 18 heavier North British 4-8-2 engines next summer. A fresh assessment of wagons and power needs will be necessary at the end of the current season as there are indications of further developments which will throw more of a load on the transport machine. A review also has been necessary of the capacity of the desert section between Atbara and Port Sudan. Consideration is being given to lengthening station yards and to reducing gradients so that more effective use can be made of the available motive power. The continued increase in traffic demands acceleration of the relaying with heavier rail, and the easing of steel supplies makes it possible to speed up the work. By the middle of 1953, 75-lb. rail should extend continuously from Port Sudan through Atbara and Khartoum to Sennar.

Erecting Steel Wagons at Shildon Works

IN the production of railway rolling stock a high proportion of costs are expended in raw and component production. Economy in overall costs, which can only be obtained by an efficient layout and the use to the greatest possible extent of jigs and fixtures, are discussed by Mr. W. Vandy, Works Manager, Shildon Wagon Works, British Railways, North Eastern Region, in a paper delivered last Wednesday before the Institution of Locomotive Engineers. The organisation at Shildon is described, from the receipt of the raw materials, through the various stages of production, to the finished product. He rightly emphasises that the policy of standardising wagons of all-steel construction adopted by British Railways, and the annual programme of renewals, offer ample opportunity for the use of mass production technique, a layout to ensure a flow of materials to the various departments, with the introduction of mechanical handling, all of which are important features in keeping costs to a minimum.

Head-on Collision in Pakistan

A REPORT issued recently by the Pakistan Ministry of Communications gives particulars of a serious head-on collision on the Eastern Bengal Railway at night on March 28, 1949, in which six lives were lost. There was a great deal of damage and some telescoping. The electric headlights of both engines were burning, but a curve and local obstacles prevented the drivers from seeing each other until only 422 ft. apart. It had been intended to send the up train first and a token was obtained for it. Delay in bringing it in past an extinct outer signal led the assistant stationmaster to cancel it and allow the opposing down train to come on. Seeing no token still on his table he thought someone else had put it back in the instrument and, by reason of a defect in the apparatus, was able to restore matters to normal and allow a token to be obtained at the next station. All the time, however, the token he

had originally taken out was in possession of a porter, who gave it to the up train, which was started in consequence of irregular action on the guard's part. This case was remarkable in that both drivers had a token, which appeared to them to be valid. The report says it is the sixth serious accident on the line since Partition.

A Plea for the Backlock

IN his letter in our issue of October 2, Mr. D. A. Wheatley, referring to the Riccall crossing accident, points out correctly that a premature replacement of the signal lever and mistaken release of the gates in such cases could be prevented by using the treadle controlled backlock, as met with in Sykes' lock-and-block system. This did not form part of the original proposals of W. R. Sykes but was added later, when it was desired to give the train itself control over a second use of the accepting plunger, hitherto freed merely by actuating the relevant signal lever. By preventing complete restoration of the lever until the train passed this effect was obtained indirectly and was characteristic of the Sykes working. It was used at times independently of the complete equipment and applied later, in slightly modified form, to Tyer's lock-and-block and the Southern Railway standard "closed" block with co-operative cancelling. As Mr. Wheatley observes, should a signalman replace his lever prematurely his attention is immediately drawn to his mistake. Moreover, he can reverse the lever at once without in any way affecting the working of any other part of the apparatus or becoming irregularly locked against further movement.

A Pre-Occupied Mind

THE collision between a shunting movement and an incoming train at Forster Square Station, Bradford, on May 20, 1953, by which one passenger was killed, was due to a driver allowing his mind to become occupied with other matters and failing to pay any attention to what he was doing. The facts were not in dispute, as will be seen from our summary in this issue of Colonel D. McMullen's report. It was usual for empty stock trains to be drawn down slowly to the starting signal, in full view for the whole length of the platform, and the shunter thought the driver was doing that, realising too late to do anything effective that the train was going right away. He managed to signal to the fireman, who could easily have seen the starting signal at danger and ought to have noticed what was happening. The driver admitted to not looking ahead at all. He started off mechanically without thinking what he was doing, having allowed his mind to wander to his own affairs. Trap points would, of course, have been effective, but Colonel McMullen considers the expense of providing them there, or elsewhere, not justified in present circumstances. Ordinary care and attention should suffice to prevent such mishaps.

East African Locomotive Orders

IN addition to the orders for two batches of 2-8-4 locomotives, one placed recently with the Vulcan Foundry Limited and the other earlier with the North British Locomotive Co. Ltd., referred to in our October 9 issue, the East African Railways have other large orders with North British and Beyer, Peacock & Co. Ltd. The North British Locomotive Co. Ltd. is building 11 "29" class 2-8-2 locomotives based on the "River" class design which first appeared on the Nigerian Railway in the 20 locomotives supplied by Vulcan Foundry Limited in 1948, and subsequently adopted on both the Nyasaland and, in a considerably re-designed form, on the East African systems; the order follows one previously completed for 16 of this type for the E.A.R. Beyer, Peacock & Co. Ltd., which for many years has supplied the large power units for the main line, has on order a further 29 of the 4-8-2 x 2-8-4 Beyer-Garratt light axleload type and a further order for 34 with the same wheel arrangement but of a new design, which will rank as the largest metre-gauge locomotives in the world. They will have an axleload of 18-19 tons and will weigh about 240 tons.

London Planning and Transport Problems

IF the development plans of the fourteen local planning authorities in the London Transport Area are carried out with no modification, travel conditions in the area in peak hours will inevitably become worse. This is one of the observations made in the current issue of *British Transport Review* by Mr. J. D. C. Churchill, Chief Planning Officer, London Transport Executive, on a review undertaken by the former Railway Executive and the London Transport Executive of the effect on transport of draft development plans.

It is estimated that by 1971 the total population of the London Transport Area should exceed 10,000,000, some 250,000 more than at present. The County of London would lose nearly 250,000, the remainder of the built-up area would stay at its present-day population and the outer ring would increase by about 500,000 persons. There are, however, serious misgivings whether the decentralisation of population envisaged would be accompanied by decentralisation of work. If not, increased pressure on peak-hour services would follow. It seems more than likely, thinks Mr. Churchill, that in twenty years the volume of employment in the central area will be higher than before the war. However well balanced the new communities on the country fringe of London may turn out to be, some growth in peak-hour travel seems ultimately unavoidable.

The new population forecasts have been reviewed in the light of the proposals made by the London Plan Working Party. The effect of the planned proposals in relation to the existing population and the population totals aimed at in the Greater London Plan show that a greater population would have to be catered for both in the suburbs and further from London than would have been the case under the Greater London Plan. The estimate by the two Executives of the distribution of population served by the railways shows that, under the draft plans, there would be an increase on all selected railway routes out of London except one; the Greater London Plan had proposed decreases in seven out of 13 cases. To take four examples (the figures proposed under the Greater London Plan are in parentheses), the following are estimates for ultimate population served as a variation on the 1952 figure:—

Fenchurch Street-Pitsea	...	...	...	...	+ 89,000 (+ 28,000)
King's Cross-Royston	...	...	...	...	+ 132,000 (+ 69,000)
Marylebone-High Wycombe	...	...	...	...	+ 10,000 (+ 19,000)
London Bridge and Victoria to Three Bridges and Ockley	...	...	...	...	+ 78,000 (- 20,000)

An important point for the future of railway development has now been raised. The London Plan Working Party, in assessing transport needs, relied on the Greater London Plan proposals as modified by the Government. The higher population envisaged under the development plans will make it imperative for expenditure on railway development, which seems likely to be heavy for many years, to be accelerated and incurred within a much shorter period than up to now has been contemplated. The much heavier capital investment programme for improving transport facilities in and around London, which would seem to be required within the next 20 years, would be superimposed on the heavy expenditure which must be made to modernise the whole national railway system. Mr. A. J. Pearson, Chief Officer (Special Duties), British Transport Commission, estimated in his paper to the Institute of Transport, entitled "Developments and Prospects in British Transport with Special Reference to Railways," which was commented on editorially in our March 20 and 27 issues, that there was an immediate profitable field for the investment of at least £500,000,000 on the railways over the next decade or so. Not one of the works recommended by the Working Party, such as Route C, the proposed tube from Victoria to Oxford Circus, Kings Cross, Finsbury Park and Tottenham, has been started. It seems that in present circumstances London can expect no more than its share of the limited capital resources likely to be available for transport improvements. The views of the two Executives, endorsed by the British Transport Commission, have been made known to the Minister of Transport with the suggestion that they should form the basis for discussion between the Government departments concerned.

East African Railways & Harbours

THE report for the year ended December 31, 1952, of Mr. A. Dalton, General Manager, East African Railways & Harbours, which has been sent to us by Mr. A. F. Kirby, who succeeded Mr. Dalton as General Manager on July 1, shows that during the year gross revenue again surpassed all records; the figure of £15,727,903 represents an increase of over £2,000,000 compared with the previous year. Gross working expenditure was £12,417,268, compared with £10,478,824. The management was much handicapped, Mr. Dalton states, in its efforts to increase capacity to keep pace with the rate of territorial development. This was attributed to the difficulties of loan authorisation and the time lag between the placing of orders and delivery of equipment. Although a further £32,750,000 was authorised during the year, the administration's loan ceiling, at a total of nearly £60,000,000, was still inadequate to finance their requirements, even after allowance had been made for the considerable use of betterment funds. Continually rising costs have made provision for many major works inadequate; a review of harbours capital works had shown that they would require nearly £4,000,000 more than the amounts shown in the loan schedules, and a similar state of affairs was expected in the railways programme. In these conditions, the administration had to reduce in many instances the scope of its development programme by postponing certain works in order that funds allocated to them could be earmarked for more urgent projects.

A third instalment of the £23,000,000 loan amounting to £7,000,000 was raised in London in September, bringing the total raised to £17,750,000 and leaving £51,500,000 still to be found. The latest reports, however, up to August, 1953, state that a further £5,709,000 has been authorised, £959,000 already having been taken up on behalf of Colonial Government funds and £250,000 being reserved for subscription in East Africa. The remaining £4,500,000 4 per cent stock has been offered for subscription in this country at £95 per cent. The total authorised loan now stands at some £65,000,000, of which a little more than £20,000,000 has been raised.

The following are some of the more important operating results in 1951 and 1952.

	1951	1952
<i>Railways, steamers, and motor transport—</i>	(Thousands)	
Total train-mileage	7,992	8,605
Passenger journeys	6,565	6,434
Goods tonnage carried	3,590	3,811
<i>Coaching receipts</i>	1,676	1,937
<i>Goods receipts</i>	8,576	10,111
<i>Total receipts</i>	10,686	12,571
<i>Working expenses</i>	7,426	8,827
<i>Harbours—</i>		
Receipts	2,555	2,899
Expenditure	1,682	1,982

The latter part of the year, in which a state of emergency was proclaimed, saw a slight decline in the number of passenger journeys over the whole system. In February, 1952, a conference was held in Nairobi, attended by representatives of all shipping lines, to discuss congestion at Mombasa; as a result, the Mombasa Import Cargoes Phasing Committee was formed. By the middle of June the scheme began to show results. The waiting time for ships discharging was reduced from 64 to 32 days; by the end of August no ship had to wait for a berth and the phased tonnage was substantially increased. The main emphasis on the K.U. Section during the year was on moving traffic from the port of Mombasa and the tonnage cleared up country exceeded by 9.7 per cent the record figure achieved in 1951. During the year, 251 units of new goods rolling stock were placed in service on the K.U. Section; 18 new 29 Class 2-8-2 main line locomotives were also received with three second-hand light axle Beyer-Garratt locomotives from Burma. Passenger carrying capacity was greatly helped by the arrival of 12 new coaches, the balance of an order for 13, intended for second class travel.

Although the volume of cargo dealt with during the year, amounting to 766,449 tons, was 17.7 per cent higher than the tonnage handled in 1951, no serious congestion was experienced at Dar-es-Salaam. The volume of cargo dealt

with at Tanga, 268,194 tons exceeded the 1951 total by 13.0 per cent and was the highest in the port's history.

On the Tanganyika Central line the tonnage of public goods traffic increased by 14 per cent over the previous year. One of the main reasons for the ability to cope with this increased tonnage was a substantial improvement in operating efficiency. Steam locomotive availability progressively improved throughout the year from 67.78 per cent in February to 81.96 per cent in November, whilst the number of miles per wagon per day was advanced from 50.77 in 1951 to 57.35 in 1952. The arrival of six new "26" class 2-8-2 main line locomotives from the United Kingdom, mostly during the latter part of the year, and of two second-hand Beyer-Garratt locomotives made an important addition to the Central Line locomotive fleet; with the increased operating efficiency an increase of 22.22 per cent was achieved in the ton mileage worked in the second half of the year.

The results achieved on the Tanga line showed an increase of 18.65 per cent in loaded wagons and 18.69 per cent in miles run per wagon; nevertheless, the report states, the capacity of the line is inadequate to meet traffic demands. Some improvements were made during the year, and three light-axle Beyer-Garratt locomotives were transferred from the K.U. Section, but before full advantage can be taken of these many more improvements must be made.

The Tanganyika road services were again hard pressed to meet all demands and a severe handicap was the continued delays in the delivery of new Albion vehicles, with which the fleet is being re-equipped. The marine services had to cope with a record tonnage of 321,990, an increase of some 17.0 per cent over the 1951 figure.

Referring to the shortage of capital funds as always a major problem, Mr. Dalton goes on to state that of equal importance are the inordinate delays in delivery of rolling stock, equipment and material from the United Kingdom. A case in point was the first class coaches which had been on order five years; there are many other cases, he states, and the administration was forced to consider very seriously placing orders outside the United Kingdom. Locomotives are on order in France, tank barrels in South Africa and steel plate in Japan. Of the many new works for which plans were completed and authorised during the year was the extension to the dockyards at Kisumu. It is proposed to purchase plant and machinery at a cost of £26,609 which will enable the construction of all the Administration's lighters for its Lake and River Services.

The most important of the many new projects in progress during the year was the westward extension of the railway from Kampala. All essential survey work was completed by the end of 1951 and a contract was let early in 1952 for the construction of earthworks for the first 23 miles to Mityana, the remainder being carried out departmentally. Adverse weather conditions, however, had set the schedule back four months by the end of the year. On the Southern Province Railway, platelaying continued on the Mtwara/Ruo section, but, here, too, adverse weather delayed procedure. Two major re-laying works were in progress during the year. The replacement of the 50-lb. track with 80-lb. material on the 125 miles section between Nakuru and Eldoret was continued; in October a start was made on replacing the old 50-lb. material on the Kisumu line with new 60-lb. rail. During the year, work proceeded on a major scale, involving over £500,000 for remodelling railway facilities at Nakuru; a new locomotive shed was completed and brought into use in December; at Kampala the first stage of remodelling the goods yard was completed. The year 1952 saw the completion of the most ambitious engineering survey carried out by the railway in East Africa since the original survey to the Uganda Railway was conducted over 50 years ago. The routes dealt with were those for a possible connection between the railway systems of Rhodesia and East Africa. The report, together with the economic survey report of Sir Alexander Gibb & Partners & Overseas Consultants, Inc., of New York is being studied by the Governments concerned.

British Transport Commission Traffic Receipts

THE remarkable feature of traffic for Period 10, the four weeks ended October 4, is the record receipts of British Road Services, £6,400,000, an increase of £249,000 over the corresponding figure for last year. On the eve of the disposal of some of the Commission's road haulage assets, some particulars of the first stage of which were given last week, a drop in nationalised road haulage traffic might have been expected. On the other hand, the results of the hard work and skill put in by the staff of British Road Services since nationalisation nearly six years ago have begun only recently to make themselves felt.

Increased receipts from the traffic, largely merchandise, carried by British Road Services, are not reflected in the merchandise and livestock receipts of British Railways. At £8,802,000 these are only £479,000 or less than 6 per cent above the 1952 total for this period, which represents only a slight increase in traffic in view of the 5 per cent increase in rates in the past twelve months. Mineral receipts at £3,449,000, again in the light of the 5 per cent rate increase, show only a slight rise in traffic. Coal class traffic receipts at £8,726,000 show a marked rise in traffic, being some 9 per cent up on the figure for Period 10 of last year. As there has been a tendency towards shorter rail hauls of coal, from pits to ports rather than long cross-country journeys, the rise in receipts points to a considerable increase compared with this period of 1952 in the tonnage despatched by rail.

	Four weeks to October 4		Incr. or decr.	Aggregate for 40 weeks		Incr. or decr.
	1953	1952		1953	1952	
	£000	£000		£000	£000	
British Railways—						
Passengers ...	8,868	8,539	+ 329	91,543	89,016	+ 2,527
Parcels, etc., by passen- ger train ...	3,102	2,874	+ 228	29,312	27,293	+ 2,019
Merchandise & livestock ...	8,802	8,323	+ 479	82,092	80,761	+ 1,331
Minerals ...	3,449	3,273	+ 176	34,244	31,561	+ 2,683
Coal & coke ...	8,726	8,002	+ 724	82,250	76,612	+ 5,638
Total British Railways ...	32,947	31,011	+ 1,936	319,441	305,243	+ 14,198
British Railways C. & D. ...	903	859	+ 44	8,865	8,671	+ 194
British Road Services ...	6,400	6,151	+ 249	59,839	58,424	+ 1,415
Road Passenger Transport : Provincial & Scottish ...	4,238	4,005	+ 233	39,397	37,584	+ 1,813
London Transport—						
Railways ...	1,406	1,368	+ 38	13,732	13,632	+ 100
Buses & coaches ...	3,339	3,131	+ 208	31,237	30,220	+ 1,017
Trolleybuses & trams ...	739	715	+ 24	7,009	7,349	- 340
Total London Transport ...	5,484	5,214	+ 270	51,978	51,201	+ 777
Ships ...	1,049	1,035	+ 14	9,489	9,644	- 155
Inland Waterways : Carry- ing ...	67	72	- 5	690	687	+ 3
Total from passengers ...	19,115	18,281	+ 834	187,721	182,632	+ 5,089
Total from freight, parcels & mails ...	31,973	30,066	+ 1,907	301,978	288,822	+ 13,156
TOTAL FROM CARRY- ING ACTIVITIES ...	51,088	48,347	+ 2,741	489,699	471,454	+ 18,245

The passenger receipts of British Railways were £329,000 more than for the corresponding four weeks of last year; and, seasonally £1,853,000 less than for the previous four weeks, which included peak holiday traffic. London Transport receipts from the three main groups of services show slight increases on the previous period; it is not clear how far increased receipts from visitors to London and from the excursion journeys of Londoners by London Transport during the holiday season are offset by the drop in business journeys during the holiday season.

Ship receipts for Period 10 were £379,000 less than for the preceding four weeks, which can be explained by the end of the holiday season. The slight increase compared with last year, as against the decrease compared with 1952 shown in ship receipts for Period 9, doubtless is the result partly of the return to normal of Anglo-French services.

PERCENTAGE VARIATION 1953 COMPARED WITH 1952

	Four weeks to October 4		40 weeks to October 4	
	1953	1952	1953	1952
British Railways—				
Passengers ...	+ 3.8	+ 2.8		
Parcels ...	+ 7.9	+ 7.3		
Merchandise & livestock ...	+ 5.7	+ 1.6		
Minerals ...	+ 5.3	+ 8.5		
Coal & coke ...	+ 9.0	+ 7.3		
Total ...	+ 6.2	+ 4.6		
C. & D. Services ...	+ 5.1	+ 2.2		
Ships ...	+ 1.3	- 1.6		
British Road Services ...	+ 4.0	+ 2.4		
Road Passenger Transport ...	+ 5.8	+ 4.8		
London Transport—				
Railways ...	+ 2.7	+ 0.7		
Buses & coaches ...	+ 6.6	+ 3.3		
Trolleybuses & trams ...	+ 3.3	- 4.6		
Total ...	+ 5.1	+ 1.5		
Inland Waterways ...	- 2.3	+ 1.2		
Aggregate ...	- 5.6	+ 3.8		

The Future of Nationalisation

UNDER the above title, Mr. H. A. Clegg, Fellow of Nuffield College, Oxford, and Mr. T. E. Chester, of the Acton Society Trust, have written an essay which criticises the organisation of State-owned industries and advocates "small-scale operation" of their activities as an alternative to centralised control. The book is the subject of a short notice elsewhere in this issue.

The authors mistrust what they call "a tall pyramid of organisation" adopted by the public corporations established by Parliament to manage the coal, electricity, gas, and transport industries. They say that "to perform properly the duties of a member of one of the national boards is a task for a superman" and suggest that there is not enough talent available to fill the posts created by the new régime. They see disadvantages in standard administrative procedures without regard to local differences and in standard establishments. In their opinion local managers are neither encouraged to do their best nor given a chance to foster good industrial relations.

To remedy these supposedly defective arrangements, it is proposed that "Parliament should decide what functions can be and should be exercised over an area wider than the individual undertaking and place responsibility for these functions alone upon appropriate regional and national authorities." In the realm of transport, the Commission would remain in being, but the Railway Executive and the Regional headquarters would be replaced by "new devices of organisation." The nature of these devices is not specified, but we are told that "instead of acting as an overall management, or as the regional feelers of such a management, national and regional headquarters should become group organisations whose main purpose is to provide services required by the districts."

The railway districts contemplated by the authors would not be the existing departmental districts, but at some 30-50 centres a single district manager would take charge of work now done by separate operating, commercial, motive power, civil engineering, and signalling district officers. Somewhat naively, the essayists imagine that such an amalgamation of duties is possible because six district traffic superintendents are responsible for both operating and commercial matters in the Southern Region, where traffic requirements differ radically from conditions in other parts of the country. Civil engineering and motive power are supervised in the Southern Region, as elsewhere, by technically qualified officers and we cannot see how the proposed combination of functions at district level could be carried out anywhere without jeopardising efficiency.

The authors are obsessed with the idea that the "local organisation within the railways" is full of shortcomings. In our opinion the main weaknesses in the present system are to be found at higher levels; and we expect the Government's plan for revising administrative methods will aim at defects in the upper strata of the railway hierarchy.

LETTERS TO THE EDITOR

(The Editor is not responsible for opinions of correspondents)

Locomotive Front Ends

September 21

SIR,—On the evergreen subject of locomotive front end arrangement again raised in your issue of June 5, I have some notes, made in the 1920s, which purport to represent the late Mr. G. J. Churchward's practice on the then G.W.R. The figures may be of some interest.

H (a factor)

$$= \frac{\text{heating surface (sq. ft.)} \times \text{vol. of cylinder (cu. in.)}}{1,000,000}$$

B=inside dia. of blast pipe.

C=inside dia. of chimney choke=0.42H+8.15 in.

D=distance from chimney choke down to mouth of chimney bell=C in.

d=dia. of mouth of chimney bell=2C in.

T=tip of blastpipe up to chimney choke= $\frac{C}{B} \times 11.4$ in.

X=blastpipe tip below boiler centre line=approx. $\frac{1}{2}$ dia. of area pierced with tubes.

Inside taper of chimney 1 in 9 approx.

The blast pipe tip was fitted with Churchward's well-known "jumper top" which lifted when the engine was working hard and so relieved back pressure. I adopted it on the Nigerian Railway in the 1930s. The late Sir Nigel Gresley experimented on the then L.N.E.R. Pacific locomotives with a manually operated positive exhaust release by-pass, which served the same purpose. No doubt the 4-6-2 engine *Mallard* used it when running at 126 m.p.h. with a 60 per cent cutoff.

Yours faithfully,

G. V. O. BULKELEY

Botha's Hill, Natal

High-Speed Trains

October 14

SIR,—The contribution from your North Eastern correspondent in your issue of September 25, must have gladdened many of your readers. He might, however, have debunked some of the other arguments advanced against streamliners.

We were told that the public does not wish to be "hurtled along" in specially fast trains but prefers comfort and punctuality to speed. Surely it was the combination of these factors which the streamliners provided and for which they were deservedly popular, if smoothness of running occasionally left something to be desired it was probably attributable to the articulated stock rather than to mere speed. We were "hurtled along" in the "Plant Centenarian" to and from Doncaster on September 20, and even at almost 96 m.p.h., the riding of the coach in which I was travelling, of conventional design, was beyond reproach.

The "Coronation Scot" of the L.M.S.R., only slightly slower than the L.N.E.R. "Coronation," was an exceptionally smooth-running train, and I have travelled in an ordinary train from Crewe to Euston at an average speed of 70 m.p.h. in perfect comfort. From personal experience I can testify that the steam-hauled service timed at 74 m.p.h., between Berlin and Hamburg, was unsurpassed for smooth running.

We were also told by the late Railway Executive that it thought better to accelerate a larger number of trains than to run a few at exceptionally high speeds; but the "Flying Scotsman" still takes 17 min. longer in the down and 25 min. longer in the up direction, than in early 1939, and the "Heart of Midlothian" is 27 min. slower down and 20 min slower up.

Was not the main objection to streamliners the fact that it was considered necessary to keep two sections ahead clear to allow an adequate safety margin with the brake power available, and that the L.N.E.R. was working on

this problem before the war? Surely present-day railway engineers can build trains, not necessarily streamline, which have adequate brake power to enable them to run in schedules at least approximating to those of the streamliners, without the drawback of special signalling and increased line occupation.

Now is the time for the railways to go all-out to provide the best possible service and build up goodwill. The businessman who leaves Kings Cross at 2 p.m. to arrive at Edinburgh at 9.52, and who remembers that fifteen years ago he could have left by "Coronation" two hours later, to arrive only eight minutes later, is hardly likely to think of British Railways as a really progressive institution deserving his support.

Yours faithfully,

W. G. POLACK

294, Hagley Road, Birmingham, 17

Wrong Spelling

October 10

SIR,—The contractor who spelt Gwendraeth as "Gwendreath" (Scrap Heap, October 9) errs in good company. The Railways Act of 1921 is printed in *Public General Acts*, 1921, where among the subsidiary companies of the Western Group on page 485, there are the names "Burry Port & Gwendreath Valley Railway Company" and "Gwendreath Valleys Railway Company." Perhaps a lawyer could argue that the two Gwendraeth lines were not legally amalgamated with the G.W.R., and therefore have not been nationalised, as they did not appear as separate undertakings in the Transport Act of 1947.

The spelling "Gwendreath Valley" is also used on page 94 of the *Index to Local & Personal Acts* (H.M.S.O., 1949), but the heading "Gwendraeth Valleys" is used on page 155.

Yours faithfully,

WILLIAM J. SKILLERN

15, Hollymount Road, Stockport

Armstrong-Whitworth Diesel-Electric Locomotives

September 23

SIR,—In your issue of September 4, on p. 275, you refer to ten diesel shunting locomotives built by Armstrong Whitworth with Crompton Parkinson power equipment, for the L.M.S.R. in 1935. These locomotives, it is stated, were taken over by the War Department and four ultimately handed over to the Belgian National Railways. The comment is then made that "Of the remainder, no exact history is available."

Perhaps I may be allowed to mention that the second instalment of Part No. 18 "L.M.S.R.-type Diesels" in the series "Locomotives of the W.D. & U.S.A. Transportation Corps," to be published shortly in *The Railway Observer*, will detail such history of these locomotives as is known. Briefly, however, these ten locomotives became W.D. Nos. 19-22 and 213-8, later 70019-22 and 70213-8. The first four went to the Middle East, where they remain in W.D. service. Nos. 213-4-7-8 entered S.N.C.B. service after military duty on the Continent during the war. Nos. 215-6 remain in W.D. service in this country and are now numbered W.D. 882-3.

Yours faithfully,

R. TOURET

Editorial Representative
for W.D. & U.S.A. T.C. Locomotives

3, Seaview Avenue, Eastham, Wirral, Cheshire

THE SCRAP HEAP

Prizewinning Railway Report

The Canadian National Railways have won the bronze "Oscar of Industry" statuette for their 1952 annual report. It is the fifth consecutive year that the C.N.R. report has won the international award. More than 5,000 annual reports were entered in this year's competition sponsored by the New York journal, *Financial World*. The report was the subject of an editorial article in *The Railway Gazette* of April 24.

Autumn Journey

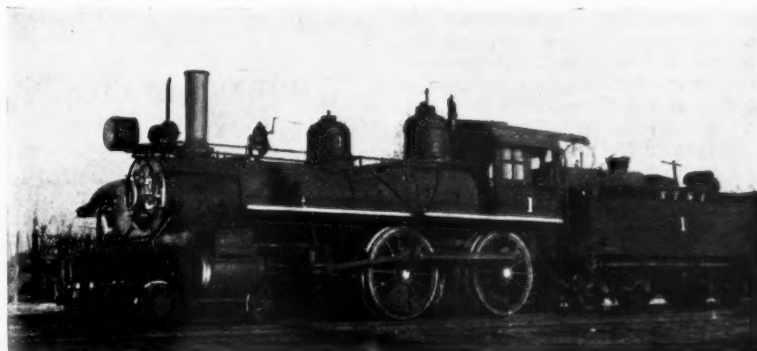
In one of his books Sir Robert Bruce Lockhart wrote that one of the experiences he liked most was to get into a night train in London, have a meal, go to bed, and waken up to have breakfast somewhere near Blair Atholl. . . . The 7.20 from Euston to Inverness is said, by some people, to be the most romantic train in Britain. It is a nice, homely train, unpretentious in appearance, and a little shabby looking compared with some smarter trains we have seen.

Sir Robert is dead right. There is something about London as an *apéritif* which makes breakfast, on an October morning, between Blair Atholl and Dalwhinnie, taste all the better. . . .

Soon we shall be passing Culloden Moor and running down the long detour into Inverness, where the 7.20 will quietly expire. It has taken us roughly as long to make the trip as it would to fly to New York. On the whole we'd rather ride in the 7.20 than fly the Atlantic. You can't waken up in Perthshire if you take the sky route to the New World.—From "*The Scotsman*."

Veteran American Locomotive

The oldest steam locomotive in regular service in the United States is a 4-4-0 of the 14-mile Stockton Terminal & Eastern line, California, shown in the accompanying illustration. It was built in 1867 and shipped from the Eastern States, round the Horn to California for delivery to the Central Pacific Railroad. The Central Pacific became part of the present Southern Pacific Lines, which later sold the engine to its present owners.



Photo]

[A. J. Richards

The oldest locomotive working in the U.S.A., built in 1867

Crossing the Line

The photograph reproduced below of a nameboard at Equator Station, on the main line of the Kenya-Uganda Section of East African Railways & Harbours, was sent us by a correspondent. This station is 8,700 ft. above



Photo]

[F. H. Worsfold

Nameboard at Equator Station on the Kenya plateau

sea level, and and not far from the summit near Timboroa, where the line attains an altitude of 9,100 ft.

Spotting by Ear

About 1896 our garden looked down on to the main lines from Victoria and 700 trains a day went past us.

My three young brothers spent their spare time noting the names and numbers of engines, and covered sheets of paper with their notes.

They also knew, when in the house, which trains were passing by their sound. "There," they would say, "goes the Richmond train," as once an hour the old L.S.W.R. sent one through, or

"That's an L.C.D.R. or an L.B.S.C.R." Their ears were as sharp as their eyes. From a letter to "*The Daily Telegraph*."

Presidential Saloon in Storage

It is reported that the special saloon of the President of the United States, U.S. Car No. 1, is to be placed in storage. President Eisenhower, who mostly travels by air, has, since his inauguration, used it only once. The car, built in 1942 for President Roosevelt, weighs 143 tons and is armour plated.

A Curious Timetable Appendix

"*The Diary of Alfred Domett*," edited by E. A. Horsman, of Durham University, records Miss Browning as saying on July 9, 1873, that "the Chicago Railway Company had commenced publishing, with their periodical timetables, part by part of Browning's works as an appendix; 10,000 copies circulated monthly. They began with 'Paracelsus'."

Gilbert in Diesel-land

(See the Scrap Heap for September 11.)

Old-fashioned people, who, like me, Unmoved by modern wonders, see In any 4-6-2 in motion The noblest form of locomotion, Will surely join in adulation Of one more used to execration, Scourge of the nuisance-perpetrator, The People's own investigator, That *enfant terrible*, none other Than Gilbert H——, High Priest of Bother.

Our Gilbert, so the records say, Was diesel-drawn the other day, When, suddenly, a noisome vapour Shed twilight on his morning paper And blotted all his world from view, A most annoying thing to do.

Gilbert arose in indignation, Administering commination, With bell and book, if not with candle; Gilbert, in fact, flew off the handle. "It's not our fault," the porter cried, "For goodness knows, we've tried and tried. "To clarify our points of view; "It's that there stuff the diesels brew—" "They don't half chuck their weight about "And dirt as well, when they're all out." (No doubt a slight exaggeration, Uttered *ad lib.* in desperation.) "I'll come and wipe your window-pane "And you'll be right as rain again."

This mollified dear Gilbert so He had to let his millions know. That's why old-fashioned folk, like me, Who treasure memories, maybe, Of loveliness and elegance, Perform our modest song and dance And hope we may be pardoned when We mildly murmur now and then: "Really, it seems that, on the whole, "We didn't do so bad on coal!"

A. B.

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

April Traffic Analysis

The volume of 5,473,755 tons of traffic recorded during April, the first month of the financial year, shows a small decrease of 96,000 tons in comparison with April last year. Nevertheless, ton-miles registered last April were slightly in excess of April, 1952.

Passenger journeys during last April numbered 23,798,238 as against 23,696,851 during April of the previous year. Suburban passenger traffic, especially third class, accounted for the increase.

Traffic has become more or less stable without the sharp increases recorded during recent years; stabilisation is, however, taking place at a very high level.

Increased Fruit Exports

Fruit exports show an advance over last year. During the first three months of the citrus season, April, May, and June of this year, 76,673 tons were exported as compared with 60,331 tons last year, an increase of 16,342 tons.

A review of the deciduous figures shows an increase of nearly 50 per cent from 103,725 tons during the 1951/52 season to 149,785 tons during 1952/53. More deciduous fruit was exported through Cape Town alone during the 1952/53 season than the total Union exports for either of the previous two years, the total for 1950/51 having been 112,447 tons, for 1951/52, 103,725 tons while Cape Town alone last season handled 131,025 tons.

QUEENSLAND

Diesels for the Government Railways

The first two diesel-electric locomotives built by the English Electric Co. Ltd. for the Government Railways arrived in Sydney recently. They are rated at 1,500 h.p., and are intended for main-line services between Brisbane and Cairns, with the newly installed air-conditioned trains.

TASMANIA

Express Freight Service

All-steel covered wagons constructed at the Launceston Workshops are being used in the new express freight service. They are designed to match the passenger cars in external appearance, and are now in regular use in certain passenger trains. The wagons are built up on passenger type bogies and they can be close-coupled to other vehicles and run safely at passenger train speeds.

Apart from providing fast transport for goods, the wagons reduce damage to fragile freight and secure and weather-proof stowage is assured. Constructed

of lightweight all-welded steel, each wagon weighs about 13 tons and the load capacity is 25 tons. The programme provides for the construction of 26 of these wagons and the title "Diesel Express Freight" has been applied to the service given by them when they are used for through loading on passenger trains.

Since the introduction of these wagons, it has been possible to build up payloads. Plans are in hand to extend this service to all parts of the system when sufficient wagons are available. They have already attracted more freight business to the railways, and have proved most suitable for the movement of high-class freight. Furniture is being moved without damage, and the Railways Department has secured the services of an expert in furniture packing to train the goods staff in proper methods of handling this type of freight.

NEW ZEALAND

Auckland Underground Scheme

At least two years are likely to elapse before the construction of the underground section in Auckland begins, according to a statement by Mr. V. A. Robertson, a senior partner of Sir William Halcrow & Partners, during a recent visit to Auckland. The firm was engaged early this year as civil engineering consultants for the project. A report, with plans and estimates of costs covering the tunnel and underground stations, is being prepared for submission to the Government.

Rolling Stock Output

During the first six months of 1953 more new wagons were placed in service than during the whole of 1952. Compared with the total of 621 new goods and livestock wagons completed last year, 883 were passed into traffic between January 1 and July 18, 1953.

Preference is being given to the assembly and completion of new wagons, rather than to the execution of heavy repairs on old-type, low-capacity stock. The number of wagons under and awaiting repair is not being allowed, however, to rise to an undue total. At June 20 the percentage of stock out of traffic was 9.8, compared with 8.3 per cent a year earlier. The number of wagons actually available for service at June 20 this year was greater by 130.

Old wagons which are uneconomic to repair are being scrapped, and 126 were scrapped during the first half of this year. Wagons which are being repaired are in many instances being modernised, for example, by the provision of stronger drawgear.

At the present time the demand for wagons is relatively quiet and little difficulty is being experienced in meeting re-

quirements. With the even greater stock of wagons expected to be available by the end of this year, it is expected that the wagon supply during the next busy season will be quite satisfactory, and no difficulty should be experienced in meeting all requirements.

INDIA

Calcutta Suburban Services

The overcrowding in suburban trains around Calcutta continues to engage attention. With a view to finding a lasting solution of the problem of carrying the ever-increasing number of passengers, the Government of India has decided on a detailed survey of electrification of the suburban sections around Calcutta.

Meanwhile, within the limitations of existing line capacity and the availability of the power and rolling stock, the Eastern Railway, which handles traffic in and out of Howrah, is trying to bring relief to suburban passengers. One recent measure was a more intensive use of suburban rakes. It is also proposed to augment each rake by another passenger bogie, which is likely to provide more than 10 per cent additional accommodation in each train.

Increasing Steel Production

Provision has been made in the Five-Year Plan for substantially increasing the production of the existing steel works at Tatanagar and Burnpur, served by the Eastern Railway. The Government also proposes to establish new steel and pig-iron plants either in Madhya Pradesh (formerly Central Provinces) or Orissa. The export of iron ore and manganese is also likely to be further increased.

New coalfields are being opened while the existing fields are being developed. To meet the expected demands from all these projects, certain sections of the Eastern Railway are being doubled to increase line capacity, more crossing stations are to be constructed, and the remodelling of the existing yards and construction of new yards has been planned.

UNITED STATES

Slackening Diesel Demand

With many railways now approaching complete dieselisation, the demand for new diesel power has eased off sharply. The Electro-Motive Division of the General Motors Corporation, which has the largest output of diesel-electric locomotives in the United States, has reorganised in such a way as to cut its production from seven-and-a-half to four complete units daily, and other diesel builders are taking similar action. Some of the surplus production capacity

of these firms, however, is being used in the modernisation of diesel units of earlier types, and in the manufacture of spare parts.

Certain of the bigger railways, however, whose changeover from steam to diesel power is in a less advanced stage, are still placing some substantial orders. For example, the Pennsylvania Railroad recently has ordered 78 diesel-electric units, 56 of them of the handy combined road-shunting or all-purpose types of 1,500-1,600 h.p., 21 shunters of 1,000 or 1,200 h.p., and one transfer unit of 2,400 h.p. The Reading Railroad has ordered 24 units, among them one of the latest Fairbanks-Morse opposed-piston "Trainmaster" type of 2,400 h.p., and when these have been received will be able to dieselise 82 per cent of its operation.

CANADA

Diversion of Liners to Canadian Ports

One of the biggest passenger operations since the war was organised by the Canadian National Railways to meet traffic demands should the world's largest trans-Atlantic liners be diverted to Halifax, Nova Scotia, because of the strike of the New York dockworkers. Four Cunard ships were scheduled to arrive in New York, two of which were diverted to Halifax, the *Queen Mary* and the *Britannic*. The C.N.R. made preparations to handle their passengers from Halifax to New York in special trains.

The plans also covered the arrival of eight liners at the ports of Quebec and Halifax during the same period. To operate 28 special trains a total of 275 sleeping cars, 56 restaurant cars, 87 coaches and 56 baggage cars had to be marshalled.

Track Curveliner Machine

Canadian National Railways engineers now are using a time-saving device known as the curveliner in connection with the string-lining of curves. The mid-

ordinate measurements are fed into this machine, and when they have all been set up in it, a series of dials at one side of it show, in sixteenths of an inch, the exact amount of slewing necessary at each point to achieve a true arc of a circle. This device also indicates the correct amount of cant to be given at these points.

A 62-ft. string-lining wire is used and mid-ordinates are taken every 31 ft. as the ordinates then correspond with the degree of curvature of the curve at the point of measurement. The cost of the curveliner is stated to be \$3,500.

ARGENTINA

Modification to Ganz Diesel Sets

A communique of the Ministry of Transport announces that trials have been carried out with one of the new Ganz diesel sets, in which the original mounting and springing of the bogies has been replaced by a new type developed by Argentine technicians, but of which no details are given. A trial trip was made at an average speed of more than 100 km.p.h. between Buenos Aires and Luján. The Minister of Transport (Eng. J. E. Maggi), and the head of the Argentine Locomotive Works (Eng. P. C. Saccaggio), travelled in the train.

PERU

Underground Railway in Lima

The Government has authorised the Minister of Transport to arrange with the Société Générale de Traction et d'Exploitation, of Paris, to begin studies on the construction of an underground railway in Lima. Similar discussions took place in 1951 with the same French concern and it was then estimated that the total cost of the project would be some Soles 1,000 million. According to press reports, the French company would run the railway until it had covered the

amortisation of its capital investment and interest charges; the line would then be handed over to the local authorities. It is estimated that it would take some four to five years to complete the project. The company is the former Paris Metropolitan Railway which, since it handed over its rail and bus services in Paris to a transport board, has been interested in promoting underground railways abroad.

SWITZERLAND

Jura Electrification

The reorganisation and partial reconstruction of the Jura Railways, which involved the conversion from standard-gauge to metre-gauge and electrification of the Glovelier-Saignelégier line, is now almost complete. Particulars of this reconstruction and the electrification were given in our April 25, 1952, and April 3, 1953, issues. Electric traction was inaugurated on May 17, 1952, on the standard-gauge section between Porrentruy (on the Bienne-Delle main line) and Bonfol, to the north, on the French frontier. On the metre-gauge Saignelégier-Noirmont-La Chaux-de-Fonds line, 16½ miles long, the first electric trains ran on March 13 last.

The metre-gauge Tавannes-Tramelan-Noirmont line was opened in 1884 as a steam line between Tavannes and Tramelan and converted to electric traction in 1913, when the Tramelan-Noirmont extension, electrically worked from the outset, was opened. It was decided that the standard-gauge Glovelier-Saignelégier line should be converted to metre-gauge to conform to the gauge of the entire system (except the detached Porrentruy-Bonfol line). In recent years no passenger trains have run on the Glovelier-Saignelégier line, but bus services have not proved a satisfactory substitute. Passenger services were therefore resumed on October 4 after the reconstruction of the line and its electrification.

Publications Received

Fifteen Days with the Royal Engineers Transportation Branch Army Emergency Reserve. Obtainable free from H.Q., A.E.R., Transportation Centre R.E., Longmoor Camp, Liss, Hants.—This leaflet describes the many vacancies existing in Army Emergency Reserve Transportation units for a wide variety of specialists and tradesmen aged 18-50, covering almost every type of railway work. Particulars are given of pay, allowances, and bounty, and of conditions of service, including the training liability of fifteen days annually in camp, and matters such as war substantive rank. Application forms and further information can be obtained from H.Q., A.E.R., Transportation Centre R.E., Longmoor, and also by railwaymen through their staff departments. Similar information is obtain-

able from these sources on Transportation units of the Royal Signals and on the Movement Control units of the Royal Engineers.

Dust Collection and Fume Removal.—A new edition of its publication, "Modern Dust Collection and Fume Removal" has been issued by the Visco Engineering Co. Ltd. The booklet is in two parts. The first deals with problems associated with dust collection in general, and gives numerous examples of its application of Visco plant in various industries which includes wet-type collectors, multi-cyclone plant, vacuum dust collectors and so on, all of which are illustrated by a number of half-tones depicting typical installations. The second part relates to equipment designed for the removal of noxious fumes generated in the production of lead-bearing steel, lead and oxide

recovery, and fumes from lead, copper, tin and zinc smelting, various types of which are illustrated.

The Future of Nationalisation. By H. A. Clegg and T. E. Chester. Oxford: Basil Blackwell, 49, Broad Street. 7½ in. x 5 in. 211 pp. Price 12s. 6d.—This condensed treatise, the subject of an editorial article on page 453, is divided into four chapters, dealing with the concept of and reasons for nationalisation; the organisation of nationalised industry; problems of organisation; and the reorganisation of the several nationalised industries, including the authors' suggestions. Documentary sources of information generally are not specified. Transport has a section to itself in the first and second chapters, the latter, and also the fourth chapter dealing more fully, though necessarily briefly, with the railways.

U.S.A. Wagon Ferry Services

*Heavy expenditure by Chesapeake & Ohio Railway
on increasing capacity of Lake Michigan ferries*

ACROSS Lake Michigan, which makes a deep indentation southwards from the Great Lakes into the Middle West of the United States, a number of train-ferry steamers operate to and from various ports, between the peninsula of Michigan on the east side and Wisconsin on the west. Among the most extensive operations are those of the Pere Marquette Division of the Chesapeake & Ohio Railway, which runs services from Ludington, Michigan, to Milwaukee, Manitowoc, and Kewaunee, Wisconsin. Ludington has direct C. & O. rail connections with Buffalo, Detroit, Toledo, and other important manufacturing centres. Four services daily are worked in each direction between Ludington and Milwaukee, taking 5½ hr., two on the 2½ hr. run between Ludington and Manitowoc, and one between Ludington and Kewaunee.

New Ferryboats

The Chesapeake & Ohio is now spending some \$15,000,000 so as to increase its ferry capacity by 40 per cent. Last year the company was operating six vessels, with a total daily capacity of 456 bogie wagons. During 1952 two new ferry steamers, the *Spartan* and the *Badger*, went into service, each costing \$5,000,000. Each is 410 ft. long, and can carry 32 wagons, with 12 to 14 road vehicles.

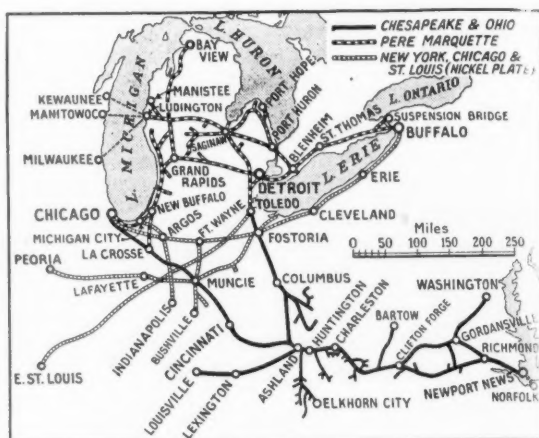
The passenger traffic conveyed by these ferries also is considerable, in view of the distance, time, and cost saved as compared with the lengthy land circuit through Chicago, and each vessel accommodates 537 passengers, for whom comfortable sleeping accommodation is provided on the night sailings.

In addition, work is now in progress on rebuilding two of the earlier ferries,

the *Pere Marquette 21* and *Pere Marquette 22*, each of which is being lengthened 40 ft., to provide increased capacity, and is being fitted with more powerful engines. The general speed aimed at is 18 knots, and the railway claims that the C. & O. rail and ferry service provides freight transport quicker by 24 hr. between Buffalo, Detroit, and Wisconsin points than the rail journey via Chicago, besides relieving freight congestion in the Chicago area.

The second important ferry service across Lake Michigan is that of the Ann Arbor Railroad, a subsidiary of the New York Central System, which runs ferries between Frankfort, Michigan, to the north of Ludington, and Manitowoc, Kewaunee, and Menominee, Wisconsin, and Manistique, Michigan, to a total of seven services in each direction daily, taking 5-6 hr. each way, except to and from Manistique, which is a 7-hr. run.

On the other hand, the Pennsylvania Railroad, which hitherto has operated a wagon ferry service four times daily in each direction between Muskegon, Michigan, and Milwaukee, because of declining revenues and increasing costs has applied to the Interstate Commerce Commission for authority to abandon the service. This is the most southerly



Map showing the Chesapeake & Ohio Railway wagon ferries and adjacent lines

of the three routes, and therefore offers the least economy in time and distance as compared with the land journey over Pennsylvania metals round the southern end of Lake Michigan, which doubtless explains why the Pennsylvania service has proved the least profitable of the three.

Weather Conditions

The ferryboats working these and other services on the Great Lakes are fully equipped to weather the storms, which sometimes result in seas as rough as those encountered on the Dover-Dunkirk and Harwich-Zeebrugge passes, and greater than anything normally encountered by the Baltic or Lake of Constance train ferries. The absence of tide makes the construction of ferry terminals relatively simple.

NEWTON VICTOR, LIMITED: NEW ADDRESS.—The transfer of the head office of Newton Victor Limited and of the London Area branch office establishments to larger premises at 132, Long Acre, London, W.C.2, is now completed. The move brings together again under one roof the various departments and activities formerly divided between the offices at Cavendish Place and Bolsover House.

EXPRESSES DIVERTED FOR SHIFNAL VIADUCT RECONSTRUCTION.—Rebuilding of the British Railways, West Region, viaduct at Shifnal, has necessitated closing of the line between Wolverhampton and Wellington for rail traffic on Sundays, October 18 and November 8 and 15. Trains normally running over this route are being diverted via Wolverhampton, Stafford and Wellington and include the following expresses between Paddington and the North:—From Paddington: 11.10 a.m. to Birkenhead, 2.10 p.m. to Shrewsbury,

4.10 p.m. to Birkenhead, and 6.10 p.m. to Shrewsbury; to Paddington: 8.5 a.m. from Birkenhead, 8.10 a.m. from Shrewsbury, 2.55 p.m. from Birkenhead, and 4.55 p.m. from Shrewsbury. Some branch-line and local services in the Leamington Spa, Birmingham, Wolverhampton, Wellington, Shrewsbury and Oswestry areas also are affected, and omnibus services are instead of local train services between Wellington and Cosford on November 15 and between Wellington and Wolverhampton on November 8.

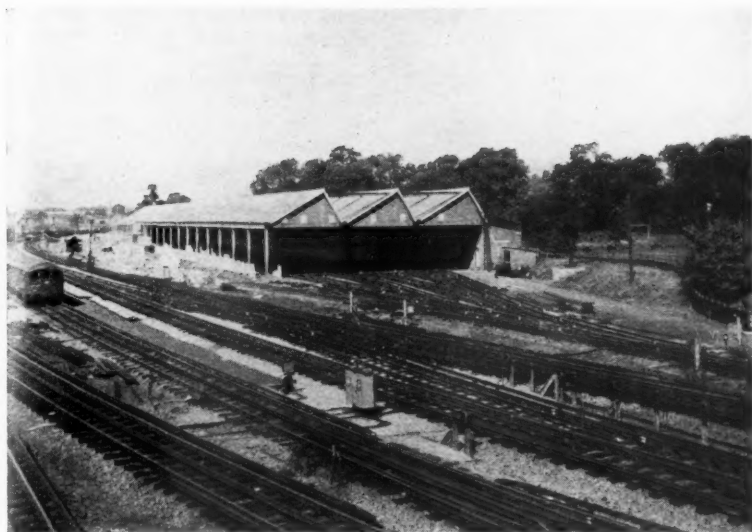
RAILWAY BENEVOLENT INSTITUTION.—The report of the Railway Benevolent Institution for the year ended April 30, 1953, shows that 6,568 persons were assisted during the year, at a cost of £58,902. Aggregate assistance rendered by the Institution now totals approximately £4,210,000. Apart from the Derby Orphanage, the income totalled £74,081 compared with £71,195 for the previous

year. Payments in respect of annuities and other allowances in relief of distress amounted to £62,839, as compared with £59,920 for the previous year an increase of £2,919. Receipts of £2,024, for the year in respect of the Dorking home for railwaymen showed an increase of £514 and expenses totalled £3,937, against £3,925 for the previous year.

BUENOS AYRES GREAT SOUTHERN RAILWAY CO. LTD.: LIQUIDATION DISTRIBUTION.—The liquidators of the Buenos Ayres Great Southern Railway Co. Ltd., which is in voluntary liquidation, announce that a second liquidation distribution will be made to the stockholders of the company. The rates are: 5 per cent preference stock at £7 10s. per cent; 6 per cent preference stock at £5 per cent; and ordinary stock at £2 per cent. This is in the proportions laid down in the central scheme of arrangement dated May 30, 1947. Notices will be sent to stockholders on November 18.

New Passing Loops at Wembley Park

Segregating London Transport Metropolitan and Bakerloo Line trains to avoid delays



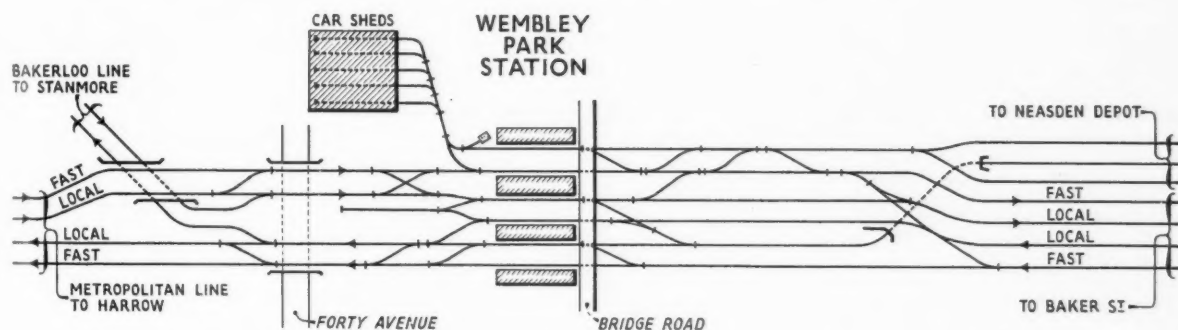
View westwards, showing curtailment of car sheds

WORK is in hand on the provision of an additional pair of running tracks north of Wembley Park Station, on the Metropolitan Line of London Transport, to eliminate the bottleneck caused by the present layout of tracks.

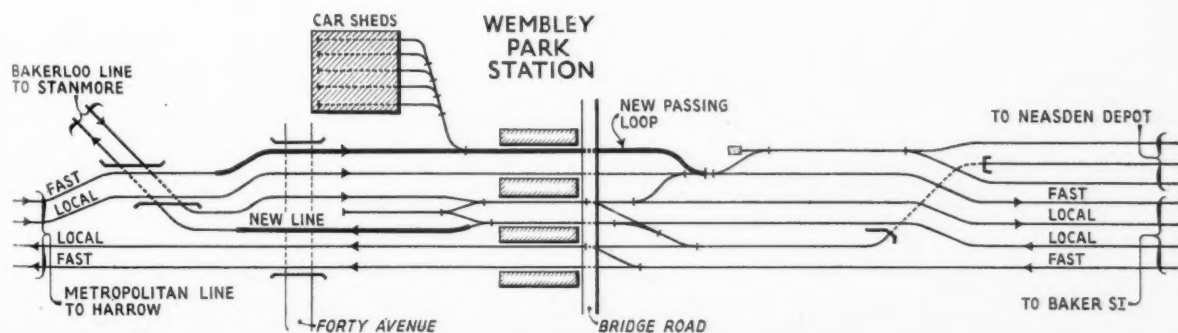
At present the Metropolitan fast and stopping services between the City and Baker Street and Harrow, Uxbridge, Watford, and the Aylesbury Line, share a common track immediately north of the station, except when the local train can be routed over the Bakerloo Line tracks, which can result in the transference of delays on either line. When the new works are completed, probably some time in the autumn of 1954, the Metropolitan fast and stopping services and the Bakerloo trains between Elephant & Castle and Stanmore will be completely segregated, so as to secure a significant improvement in Metropolitan Line working as well as making Bakerloo Line operations self-contained.

The scheme involves the addition of a new span to Bridge MR.33 over Forty Avenue, the widening of 300 yd. of embankment north of the bridge, curtailment of the adjacent carriage sheds, and provision of some half-mile of new double track, also the realignment of certain existing tracks and all necessary alterations to connections, signalling, power cables, and so on.

The work has been programmed to avoid interruption to the running of the trains.



Showing how the six Bakerloo and Metropolitan services are carried on four tracks between the junction and the station



Showing how the same six services will have a track each between the junction and a point just south of the station

Improvements at Mount Gambier

New marshalling yards and remodelled station for terminal of S.E. Division, South Australian Railways



Photo]

[Guy Bakewell

Entrance to new yard, with main line to Adelaide on left

A BRIEF account was published in our August 7 issue of the conversion from 3-ft. 6-in. to 5-ft. 3-in. gauge of the major portion of the South Eastern Division of the South Australian Railways and the commencement of broad-gauge services between Adelaide and the terminal at Mount Gambier.

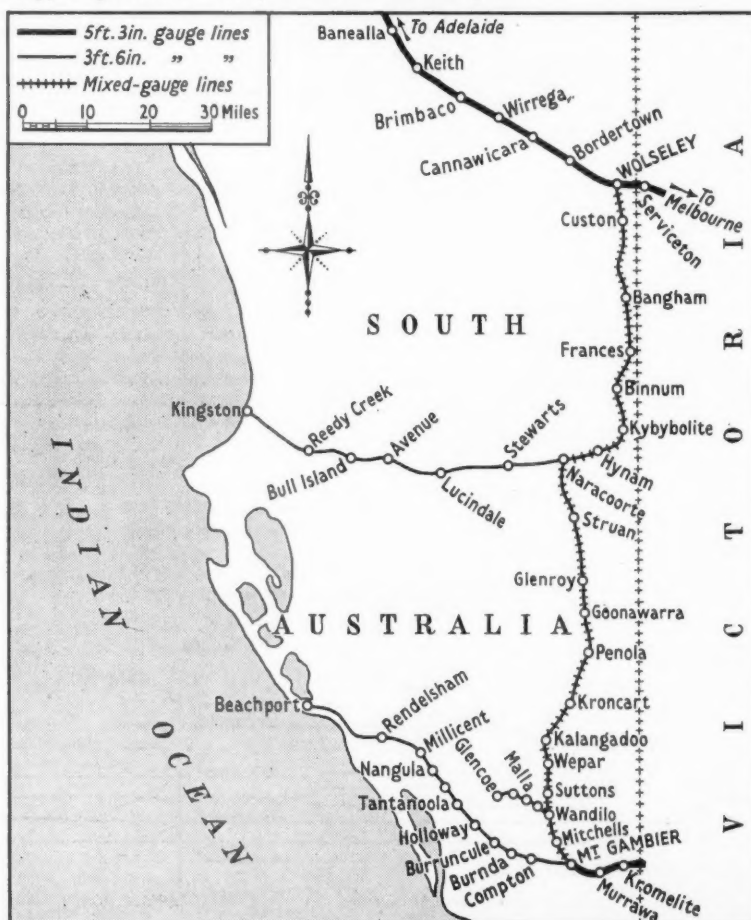
In conjunction with the gauge conversion, much work has been necessary at Mount Gambier in the creation of facilities for the inauguration of the broad-gauge service from Adelaide, because even though Mount Gambier was a three-rail station and received 5-ft. 3-in. gauge trains from Victoria, the yard was totally inadequate for planned future traffic. Therefore new marshalling yards were designed for trains of both gauges, for though broad-gauge services operate between Adelaide and Mount Gambier, the two branch lines to Beachport and Glencoe have not yet been converted. Also, freight despatched direct from Adelaide for the branches will still be worked by narrow-gauge trains between Wolseley and Mount Gambier over the main line.

The platform of the present station is to be extended 110 yd., which will give a total length of 750 ft., while the original station building to the east of the present one is to be demolished. A new signal cabin and an umbrella type shelter are to be provided on the extended platform. Opposite the station a new goods shed, giving 6,000 ft. floor area instead of the present 1,800 ft., is to be built and a new goods platform 100 yd. long will be installed. These will be on the site of the old yards used during the days of narrow-gauge working, which are inadequate for present requirements. Two tracks instead of one at present will connect the station and the new marshalling yards, which are about half-a-mile to the west, along the main line to Adelaide.

The new yards and locomotive depot occupy a space of 14 acres, and when

completed will be the largest and most fully equipped south of Tailem Bend on the main Melbourne-Adelaide line. Extra tracks have been laid for both broad and narrow gauges; a roundhouse with nine bays has been erected; and an 85-ft. turntable installed; also engine pits, coaling equipment, water columns, and a high-capacity water tower. A 70-ton weighbridge has also been provided in the new marshalling yards, and there will be the necessary offices and stores and a dining room for the staff.

The 5-ft. 3-in. gauge line, built in 1917, stretching from the Victorian Border for some twelve miles into Mount Gambier, is to be diverted slightly at the point of entry to the station as part of the plan of modernisation. This line and the two stations on it have always been worked by the Victorian Railways, though they are part of the South Eastern Division of the S.A.R. Now it is possible for the South Australian Railways to work this portion of their system.



Lines in the south-eastern part of South Australia

Branch Line Development in Western India

Reopening and building of branches to open up agricultural districts and deal with altered traffic flows



Narrow-gauge track crossing up and down broad-gauge tracks at Nadiad. The crossing is protected by track circuit

DURING the last war many branch lines in India were closed and the released permanent way material and rolling stock sent for use in the various war zones. Much metre-gauge track was sent, for instance, to Iraq, and some to Assam for improvements to the military line of communication. In pursuance of the Railway Board policy to reopen these lines to traffic and build others, work is proceeding in various parts of India.

The Vasad-Kathana broad-gauge branch of the former Bombay, Baroda and Central India Railway, now the Western Railway, which was closed in April, 1942, was reopened last June. This line is about 26 miles long, and runs from Vasad, on the main line from Bombay to Ahmedabad, between Baroda and Anand, to Vasad, near the mouth of the Mahi River on the Gulf of Cambay. The country is flat but thickly populated and intensively cultivated.

Permanent Way

The permanent way consists of new steel flat footed rails 90R British Standard section and partly of second hand rails bull headed 82 lb. section. Second-hand oval cast iron pot sleepers are in use and also new wooden creosoted sleepers. The line is packed and boxed with stone and shingle ballast 11.26 cu. ft. per foot run.

Gradients vary from 1 in 400 to 1 in 3,000, a little less than half the length being level track. Freight traffic con-

sists mainly of pulses and tobacco with mangoes as seasonal traffic, just before the monsoon.

Signalling and Point Mechanism

Important points at stations are secured by positive point locks and there is an outer and a home signal in each direction worked by a four-lever frame on the station platform. Point and signal keys are interlocked through a station master's key box. Train working is at present on the paper line clear

system, but will shortly be converted to block instruments of the key token type. At Vasad there are two signal cabins with important signals electrically controlled through a station master's electric slide control.

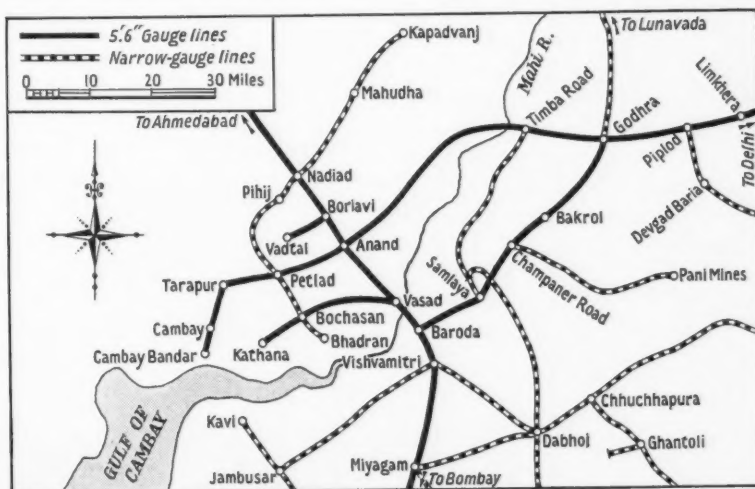
A short narrow-gauge extension between Nadiad and Pihij was opened on August 15. Nadiad is between Anand and Ahmedabad, on the same broad-gauge main line of the Western Railway. The narrow-gauge railway from Bhadran to Pihij did not connect with the former B.B.C.I.R. Bombay-Ahmedabad main line, but only with the broad-gauge branch from Anand to Cambay.

The extension of the narrow-gauge section is from Pihij to Nadiad, these two places being formerly linked by bus. The provision of this extension has also linked up the narrow-gauge branch from Nadiad to Kapadvanj. The Bhadran-Nadiad branch crosses the broad gauge by diamond crossings at Bochasan, Petlad, and Nadiad.

Kandla-Deesa Branch

The chief branch-line development in Western India, however, is the Kandla-Deesa metre-gauge line of the Western Railway, opened for traffic in the autumn of 1952, and the subject of an illustrated article in our issue of January 2.

After Partition in 1947, which gave Karachi to Pakistan, the necessity for a large port on the west coast of India north of Bombay was keenly felt. Traffic previously handled at Karachi had to be sent to Bombay with consequent congestion in the port and increased rail mileages in moving freight to and from northern and central India. A Government committee investigated the possibility of a deep-sea port somewhere on the coast in the Kathiawar



Western Railway of India lines in the Baroda-Cambay area



Narrow-gauge train crossing up and down broad-gauge tracks at Nadiad

Kutch region, and recommended that it should be situated at Kandla, also that it should be connected with both the

broad- and metre-gauge systems of the Western Railway.

The new line is an extension of the

17-mile branch to Deesa from Palanpur, on the former B.B.C.I.R. metre-gauge main line between Ahmedabad and Delhi. The total length of new construction is approximately 170 miles.

The new line is being worked exclusively by diesel locomotives, for which it is particularly suited because of the shortage of water, which in any case is unsuitable for steam locomotives, and distance from coalfields. Oil installations moreover are planned in the Kandla port area, which will reduce fuel transport costs. The experience gained with this type of locomotive in regular goods and passenger services will be of value in considering possible dieselisation elsewhere in the Republic of India.

New Port of Kandla

Until the port of Kandla is completed, Gandhidham is the terminus, situated about seven miles from the port area. The township of Gandhidham was constructed with the object both of serving the needs of the new port and of housing the many refugees rendered homeless after Partition. The town is expected to develop rapidly with the establishment of a railhead and port facilities.

Twin-Arc Welding Process

Developed to reduce deslagging during welding operations

THE increasing use of electric welding in all branches of the engineering industry applies particularly to the welding of structures, the fabrication of many parts which were formerly produced by the casting process, and also as a repair medium with consequent saving in time and costs.

A recent development by the Quasi-Arc Co. Ltd., known as the Twin-Arc process, which has been designed with a view to reducing the number of runs during welding operations, and also deslagging times, has been installed at the works of J. Brockhouse & Co. Ltd. for the welding of a large variety of small components for road transport vehicles, and the accompanying illustration shows a stub axle welded by this process.

Weld Penetration

The stub axle was previously welded with three runs of single electrodes, which required a total of 14 minutes for each component. It is claimed that by installing a manipulator and using the Twin-Arc process the welding time has been reduced to five minutes. By the new process one run only was required, using the Twin-Arc type R electrode, as a result of which deslagging time was cut by two-thirds. It is also claimed that the process provides for a better penetration into the root of the weld, and therefore gives an excellent finish.

The equipment has also been installed recently at the Alloa works of

the Harland Engineering Co. Ltd. for the fabrication of Electroglide pump casings. All the main circumferential welds are Twin-Arc welded with, it is claimed, an increase in welding speed of some 100 per cent when compared to the single-arc method. The actual welding time with the Twin-Arc is 33 min. compared with a previous time of 1 hr. 13 min.

During the process, short runs joining stiffeners to the main body were done with single electrodes using the Twin-Arc set as a double-operator unit.

The design of the welding equipment provides for a perfectly balanced load which is taken from a three-phase supply mains, at a power factor of approximately 0.55.



Road transport vehicle stub axle welded by the Twin-Arc process

Experimental Bogie High Side Wagon

*Constructed of steel and aluminium for
Nyasaland Railways, to compare wearing qualities*



Aluminium half of the wagon, showing the aluminium to steel joints across the middle of the floor and adjacent to the doors

AN unusual wagon recently built for the Nyasaland Railways by the Cambrian Wagon & Engineering Co. Ltd., closely resembles in appearance a normal 35-ton bogie high-side wagon, an order for 60 of which, designed and constructed to the approval and inspection of the Consulting Engineers, Messrs. Livesey & Henderson, has just been completed. In the newer type, however, the body is half of steel and half of aluminium.

This form of construction was put forward as the best method that could be adopted by Nyasaland Railways to compare the wear and weather-resisting properties of steel and aluminium. The use of the two materials side-by-side in one wagon ensures that service condi-

tions will be identical and will enable the administration to determine to what extent the use of aluminium in their railway wagons is justified.

Aluminium Plates and Extrusions

For one half of the wagon aluminium plating has been substituted for the floor, sides, end and doors and aluminium extrusions for the top capping, corner posts and end plate stiffeners. Applied to a complete wagon this would give a weight saving of 32 cwt. Service experiences with aluminium rolling stock in this country has shown that for floor plates, ends, and sides the use of aluminium is successful and promises to give definite economic advantages.

The margin decreases as its use is

extended to other components such as stanchions and door frames. This is because the principal requirements for floors and side plates are resistance to wear and atmospheric corrosion, combined with adequate strength for which aluminium is suitable whereas, for stanchions and door framing members in particular, stiffness and strength for minimum overall dimensions are the main requirements, and these properties for this experiment are best provided by steel.

Guided by this experience Northern Aluminium Co. Ltd., who supplied the aluminium plate and extruded sections, recommended using for the unformed plate and sheet material Noral 65SWP, a fully heat treated alloy having a typical 1 per cent proof stress of 17.5 tons/sq. in. For the door plates, which incorporated swaged stiffening, Noral 56SO was supplied to facilitate forming. Direct substitution, thickness-for-thickness, was everywhere adopted, with the exception of two of the floor plates. These in steel were $\frac{1}{4}$ in. thick, but it was felt that in aluminium $\frac{3}{8}$ in. plate would have a sufficiently long life. Additional steel angle sections were welded in the underframe to provide support for the floor, particularly in the areas by the doors where the loads are greatest.

Extruded Sections

Extruded sections in Noral 51SWP, with similar mechanical properties to the plate, were used for endplate stiffeners, corner angles and top capping along the sides. For the end it was necessary to bend the top capping section, and this was therefore supplied in

(Continued on page 466)



Experimental freight wagon for Nyasaland of half aluminium and half steel construction

Passenger Traffic Developments in Turkey

*Bridge over Bosphorus planned:
extensive diesel main-line workings*

(By a Correspondent)



Photo]

[A. Earle Edwards

Haydarpasa Station, showing Turkish State Railways headquarter offices and landing stage for Bosphorus passenger ferries

HOW far the passenger and goods traffic of the Turkish State Railways will be changed in volume and direction by the building of the proposed bridge over the Bosphorus is problematical. For freight traffic there is at present a wagon ferry over the Bosphorus between Istanbul and Haydarpasa; through running between the Turkish State Railways lines in Europe and Asia might not result in any considerable diversion to the port of Istanbul of goods traffic now passing between stations in Anatolia and Asia Minor ports, though it might stimulate through wagon traffic between Turkey-in-Asia and stations in Central and Western Europe.

From the passenger traffic aspect, the Bosphorus bridge would help to develop passenger traffic between Istanbul and stations in Turkey-in-Asia and perhaps in Syria, Persia, Iraq and beyond; it would certainly facilitate a suburban service in the new suburbs which would spring up on the Asiatic shore of the Bosphorus on the necessary approach line linking the bridge with the main line to Haydarpasa.

It is doubtful if the bridge would affect through international passenger traffic between Western and Central Europe and Ankara and beyond, as most of this now passes by air, and as most passengers in any case break their journeys in Istanbul, the present necessity of travelling by passenger vessel over the Bosphorus between Sirkeci Station (Istanbul) and Haydarpasa is no deterrent to rail travel.

The principal international service in

Turkey-in-Europe is the "Simplon-Orient Express" between Istanbul and Paris, with many connections to Central and Western Europe; the Istanbul-Paris sleeping car is routed on certain days of the week through Bulgaria, via Sofia, and on certain days through Greece, via Salonica, the latter route taking some 12 hr. longer. In addition there is a twice-weekly sleeping car between Istanbul and Athens via Salonica, taking some 39 hr. south- and 37 hr. northbound for a distance

given officially as 840 miles. This vehicle is worked between Istanbul and Salonica on the same schedule as the Istanbul-Paris car, but on different days. Apart from main-line services, a fairly frequent steam-hauled suburban service, taking 50 min. in either direction and serving ten intermediate stations, operates between Sirkeci and Küçükçekmece. Electrification of this line is planned, but no details are available of the extent or of the system to be adopted.

Passengers arriving at Sirkeci who are bound for Asia are taken by ferry across the Bosphorus to Haydarpasa, which is the Turkish State Railways' terminal, built in 1903, for services to and from Anatolia, etc. It is not immediately opposite Sirkeci but is located a little farther down the Bosphorus, but the ferry journey is of short duration and the ferries tie up immediately in front of the terminal which also is the State Railways headquarters.

Services in Asia Minor

Haydarpasa serves most parts of Turkey-in-Asia and countries beyond, and is the terminating point for a number of express trains, certain of which do not run every day of the week but are limited to specified days, examples of the more important trains being:—

(a) "Taurus Express," on Mondays and Thursdays, with through Wagons-Lits sleeping and ordinary coaches to Baghdad and Aleppo via Ankara, and a Wagons-Lits Company restaurant car running to Isahiyeh. These services run (Continued on page 469)



Photo]

[A. Earle Edwards

"Taurus Express" leaving Haydarpasa hauled by 2-8-2 type locomotive

Protecting Railway Sleepers in U.S.A.

Mastic type coating to prevent splitting



Applying Protek on the Kansas City Southern Railway, near Pittsburg, Kansas

SOME 40,000,000 sleepers are renewed each year on U.S.A. railways. Various substitutes have been tried, but no really satisfactory alternative to timber has been found. Experiments in the U.S.A. have resulted in a mastic type preparation which, it is claimed, will increase permanent way timber life by at least 8-10 years. Researches were directed towards finding the cause and cure of cracking and splitting.

The primary cause of sleeper cracking is that the bottom surface remains in constant contact with the ballast and so maintains a more or less standard temperature and moisture content; when long dry spells cause the sleeper surface to dry out it is a very gradual process. On the other hand, with the top surface, there is a constant cycle of quick wetting by rain and quick drying by sun and wind. In consequence, the internal stresses are out of equilibrium and the sleeper cracks.

Hard frosts and long dry spells alike widen the cracks and make it easy for following rains to get to the uncreosoted and unprotected heartwood. The trouble is aggravated by stones from the ballast which settle in cracks and act as wedges. In addition there is the constant pounding and intensified stresses set up by the passage of trains. It is impossible to control the temperature of the timber, but if the top and bottom surfaces can be kept at a fairly consistent moisture content, then disintegrating factors will not arise.

In their field examination of railway sleepers in their various stages of deterioration, an American research team had noticed that sleepers on which

a fairly heavy coal tar residue had fallen were in much better condition than others of comparable age. One of the team's first experiments was to cover the sleepers in a section of line with hot asphalt, allowing it to pour into and fill any cracks and to provide a waterproof bituminous top coating. After seven years, the number of replacements made in this section has been only 15 per cent of the replacements on either side of it, where timber of similar age and quality has been used. Some time before elapse of the

seven years, it was considered that the solution had been found, and research continued with various preparations designed to provide an ideal coating.

This coating needs to prevent splitting caused by weather, to fill minor cracks caused by seasoning, and to remain plastic in low temperature and reasonably solid in high temperature. It must be cheap, easy to apply, and capable of giving effective protection for many years without renewal.

Several proprietary brands returned a coverage index of 100 per cent, and one achieved this rating in the efficiency index for protection of all forms of cracks and splits.

Protek Coat

This product, Protek Coat, is manufactured by the Nox Rust Chemical Corporation, of Chicago. It is fire resistant; in field tests, substantial fires were lit against coated timber but made no headway as the coating refused to sustain flame. It also showed up well in tests for ease and cheapness of application. In favourable circumstances, one man can coat up to 500 sleepers a day. The process takes about half-a-gallon of coating compound and the total cost per sleeper works out at about 25 cents, or 1s. 9d.; the cost of a new sleeper in U.S.A. averages £1 15s.

Certain railway companies in the U.S.A. have started programmes of coating long sections of line. The Wabash Railroad has decided to use Protek Coat for several large-scale relaying jobs. As, in relaying on this railroad, a 39-ft rail is laid every 50 sec., special equipment has been designed to speed up the coating rate.



Main line of the Chicago, Burlington & Quincy Railroad at La Grange, Illinois, showing sleepers preserved with Protek

Canadian National Railways Road-Rail Service

*Introduction in Canada of service
with trailers on flat wagons*



A trailer being hauled up a special ramp on to a flat car

FREIGHT service using road trailers was introduced in Canada early in December, 1952, by the Canadian National Railways. Railway-owned tractors haul C.N.R. trailers to railway freight terminals and there the trailers are placed on flat wagons and transported in fast goods trains to their destinations, where they are hauled to factories and warehouses by tractors. The new service is the result of studies by officers of road-rail transport systems in the United States and Europe. The initial operation was introduced between Montreal and Toronto; its development is being watched for possible extension to other sections of Canada.

Work on the plans and special equipment for six 50-ton steel flat wagons for the new service began early in 1952 and orders were later placed for the construction of 12 trailers; ramps were built at Montreal and Toronto terminals to facilitate the operation. The flat wagons were the first goods units in Canada to be equipped with roller bearings and automatic brake cylinder slack adjusters; the roller bearings tend to eliminate the possibility of hot boxes and make for smoother riding and the slack adjusters are time savers eliminating the necessity of manual brake adjusting.

Wagon Design

Features in the design of the flat wagons include the use of rolled steel instead of cast iron wheels, and the installation of special security equipment to ensure against possible shifting of the trailers in transit. Hinge-type, reinforced steel, counterbalanced, three-

foot aprons bridge the ramps and the wagons. The wagons are 3 ft. 5 in. above rail, the lowest type constructed, to reduce the height of the load to meet clearances. They are more than 52 ft. long and 10 ft. wide and have an average load limit of 117,000 pounds; each

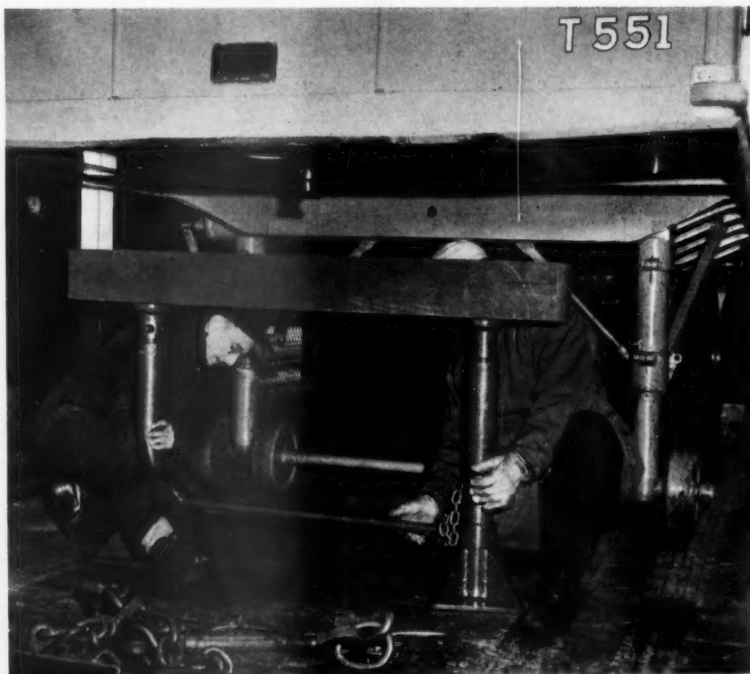
wagon carries two trailers. The 24-ft. trailers in the new C.N.R. service will have a 12 ton capacity.

In July, 1953, the C.N.R.'s "trailers on flats" service was extended between Montreal and Hamilton. To operate this additional service, the C.N.R. bought 12 more trailers and equipped six flat wagons, doubling its initial equipment in this new type of transportation. The introduction of the rail-road goods service represented a new step towards meeting road competition by the railways. It has three marked advantages in freight operation; it will speed the movement of goods traffic; reduce handling in railway goods warehouses; and curtail claims for loss and damage.

Experimental Bogie High Side Wagon (Concluded from page 463)

the single heat treated condition to facilitate bending. Standard steel door frames and side stanchions were used.

The wagon will be delivered in the knocked-down condition and the sub-assemblies riveted together by Nyasaland Railways in their shops in Africa. Aluminium rivets in Noral 16ST were used for the aluminium to aluminium joints and for the aluminium to steel joints. All other aluminium to steel joints were made with hot-driven steel rivets.



Special fastening devices ensure against shifting of the trailers in transit

RAILWAY NEWS SECTION

PERSONAL

APPOINTMENT OF THE TRANSPORT USERS CONSULTATIVE COMMITTEE FOR WALES AND MONMOUTHSHIRE.

The second term of office of the Transport Users Consultative Committee for Wales having expired on July 31, 1953, the Minister of Transport & Civil Aviation, the Rt. Hon. Alan Lennox-Boyd, M.P., has appointed the undermentioned persons to be members of a reconstituted Committee for Wales and Monmouthshire until July 31, 1956:—

Chairman:

Mr. R. G. M. Street.

Members:

Representing Industry and Commerce, Captain H. Leighton Davies, C.B.E., J.P., Messrs. W. Hazell, W. L. Davies, F. R. Graesser Thomas, M.Sc., F.R.I.C., H. Lyn Jones, M.C., T. Evans, J.P.

Representing Shipping, Mr. O. L. Harries.

Representing Labour, Messrs. J. Highfield, W. Friend, R. Parry.

Representing Local Authorities, Messrs. E. Roberts, C.B.E., J.P., W. H. Roberts, M. Selby, J.P.

Representing the British Transport Commission, Messrs. A. E. H. Brown, H. H. Swift.

Additional member, Professor A. Beacham, M.A., Ph.D.

Two further members representing agriculture, one representing shipping, one representing Local Authorities, and one representing industry and commerce have yet to be appointed.

Secretary:

Mr. W. R. Davies.

The office of the Committee is at Station Terrace, Queen Street, Cardiff.

Mr. Oswald A. Trudeau, General Passenger Traffic Manager of the Canadian National Railways, is retiring as from the end of this month.

Mr. B. M. Strouts, whose appointment as District Passenger Superintendent, Sheffield, Eastern Region, British Railways, was recorded in our October 2 issue, has been appointed Deputy General Manager, Nyasaland Railways, with effect from November 2. A photograph and biographical details of Mr. Strouts appeared in our October 16 issue.

Mr. J. Blundell, M.I.Mech.E., M.I.Loco.E., District Motive Power Superintendent, Eastern Region, British Railways, has been appointed District Motive Power Superintendent, Colwick, with effect from September 28.

Senhor Engineer de Brion, Technical Director of the Portuguese Railways, arrived in this country on October 11 to inspect British Railways. Senhor de Brion, who is also Chairman of the Electrification Committee of the Portuguese Railways, was accompanied by Senhores Pinto Monteiro and Valeiro Vicente, engineers on the staff of the Portuguese Railway

Company, and by Senhor Lino Neto, a nominee of the Portuguese Government. The mission left England on October 18.

We regret to record the death on September 5 of the Hon. C. E. Martin, Q.C., M.L.A., who was appointed Minister of Transport, New South Wales in February of this year. A portrait and biographical details of Mr. Martin appeared in our September 11 issue.



Mr. Mervyn W. Shorter

Appointed Managing Director,
Westinghouse Brake & Signal Co. Ltd.

Mr. Mervyn W. Shorter, who has been appointed Managing Director of Westinghouse Brake & Signal Co. Ltd., was a farmer's boy in Kent until, at the age of 14, in February, 1915, he was engaged by Mr. H. G. Brown as office boy at the Victoria Street office of McKenzie Holland and Westinghouse Power Signal Co. Ltd. After a year or two Mr. Shorter joined the Outside Signal Contracts Department under Mr. H. M. Proud. He worked on various signalling contracts in the British Isles, including the Liverpool Overhead Signalling in 1920, later going to the Argentine as Assistant to the Constructional Engineer. He was there engaged on the then largest power signalling contract the company had ever had—the complete power signalling of the Buenos Aires Great Southern Railway—and was afterwards in charge of the signalling installed on the Buenos Aires Underground Railway. Mr. Shorter returned to England in 1932, but spent more than half of the next seven years abroad, representing Wes-

tinghouse in, among other countries, the Argentine, Brazil, Canada, Chile, China, Egypt, India, Japan and Spain. He was appointed Assistant Sales Manager to the late Mr. E. J. Fouracre at the end of 1940, Deputy Sales Manager in July, 1946, and became Sales Manager on February 1, 1948. He was made a Director of the Railway Signal Co. Ltd., in 1948, and of W. R. Sykes Interlocking Signal Co. Ltd., in 1951, later becoming Chairman of both these companies. Mr. Shorter was appointed to the board of Westinghouse Brake & Signal Co. Ltd., in 1950.

Mr. H. R. Moffat, Assistant Chief Civil Engineer (Construction), South African Railways, has been appointed Chief Civil Engineer, South African Railways, in succession to Mr. O. R. Spyker.

Mr. H. A. Greeniaus, Assistant to the Vice-President, Prairie Region, Canadian Pacific Railway, has been appointed Assistant to the Vice President at the company's headquarters in Montreal.

Mr. F. E. Hyde, Manager of the Gracechurch Street branch of Thos. Cook & Son Ltd. since 1940, retires this month after 42 years' service with the company. He will be succeeded by Mr. J. W. P. Phillips, who moves from the London Wall Office. Mr. E. D. Naphthine goes from Cheapside to London Wall. The new Branch Manager for Cheapside will be Mr. G. Bovill, who has been the Chief Booking Clerk at Leadenhall Street.

Mr. H. Chanter, Senior Maintenance Assistant, London Transport Executive, has been appointed Permanent Way Engineer. Mr. H. A. Wickham, Permanent Way Engineer (Trams), will become Permanent Way Development Assistant.

Mr. S. O. Carter, M.Inst.T., Divisional Manager, Rail Transport & Rates Department South-Western Division, National Coal Board, who is retiring this month, spent the first ten years of his career in the Cardiff Division of the Great Western Railway. After a short period in Shropshire with the Billingsley Colliery Company he obtained a position with the Powell Duffryn Company and, in 1946, he was appointed to the position he now vacates with the National Coal Board. A founder member of the South Wales and Monmouthshire Section of the Institute of Transport, he was Chairman for the Section for 1946/47 and is now a Life Member. He is an Associate Member of the South Wales Institute of Engineers. He was Chairman of the Rates and Charges Committee of the South Wales Coal Owners and of the Demurrage Subcommittee for the purpose of negotiations between the Mining Association and the Railway Executive, consequent upon the requisitioning of private owners' wagons in 1939. Mr. Carter frequently attended the Railway Rates Tribunal and Parliamentary Committee.



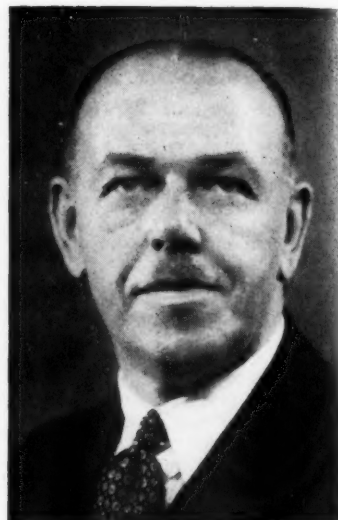
Mr. N. McCusker

Appointed Assistant Secretary (Finance & Operations)
New South Wales Government Railways



Mr. K. A. Kindon

Appointed District Commercial Superintendent,
Middlesbrough, N.E. Region



Mr. G. E. Curtis

Appointed District Goods Superintendent,
Broad Street, L.M. Region

Mr. Neal McCusker, who, as recorded in our October 16 issue, has been appointed Assistant Secretary (Finance & Operations), New South Wales Government Railways, entered the service of the N.S.W. Government Railways as a Junior Porter in 1923. By subsequent promotion he occupied a number of higher positions in the Traffic Branch. In 1947, he was appointed to a committee to improve the operating section of the service. Mr. McCusker was seconded to the staff of the Director of Transport & Highways in 1950 and held the position of Executive Officer until September, 1952, when he returned to the Secretariat of the Department of Railways. His new appointment is with effect from July 1 of this year.

Mr. K. A. Kindon, District Passenger Superintendent, Sheffield, Eastern Region, British Railways, who, as recorded in our September 18 issue, has been appointed District Commercial Superintendent, Middlesbrough, North Eastern Region, was educated at Southgate County School and London University (London School of Economics and King's College). He joined the staff of the Chief Goods Manager, Great Central Railway, at Marylebone in 1918, and was later appointed to the Wages Staff section of the newly-formed Chief General Manager's Office of the L.N.E.R. following the amalgamation in 1923. In 1930 he was appointed a Supervisor at Kings Cross Goods Depot. For several months he relieved in the post of Deputy Chief Controller, Kings Cross Control Office. In 1933 Mr. Kindon returned to the Goods Manager's Office to take charge of the Tenancy Section, and in the following year he went to Liverpool as Assistant to the District Goods Manager, where he was the senior resident representative of the company. When the Goods Manager's Development Section was inaugurated in London in 1936 he was selected to take charge of this work which had as its main object commercial research. Promotion as Assistant to District Manager, Nottingham, came in 1939, but immediately prior to the outbreak of war Mr. Kindon was loaned to the Ministry of Food as Chief Transport Officer of the Potato Division. The

L.N.E.R. secured his release in 1940 and, after returning to Nottingham, he was appointed Assistant District Goods & Passenger Manager there in the following year. Mr. Kindon was appointed Assistant London City Manager in November, 1946, and, in November of the following year, took up the position of London Suburban District Goods Manager, becoming District Goods Superintendent, London Suburban, when the post was redesignated in April 1950. Mr. Kindon has been Acting District Passenger Superintendent, Sheffield, since August, 1950.

Mr. L. P. Parker, Wh.Ex., M.I.C.E., Motive Power Superintendent, Eastern Region, British Railways, retired on October 21.

Mr. Arthur Wood, Assistant District Operating Superintendent and Mr. Walter Hartley, Staff Assistant, both of the Divisional Superintendents' (Central Division) office at Manchester, London Midland Region, British Railways, have retired.

The following appointments have been announced by British Railways, Scottish Region.

Mr. T. M. Sheppard, Assistant to District Operating Superintendent, Edinburgh, to be Assistant District Traffic Superintendent, Ayr.

Mr. D. J. Murphy, Stationmaster, Kyle of Lochalsh, to be Stationmaster, Gourrock.

Mr. W. Greig, Assistant Stationmaster, Glasgow (Central), to be Stationmaster, Ardrossan.

Mr. R. Gill, Stationmaster, Bridgeton Cross (Glasgow), to be Stationmaster, Bo'ness.

Mr. G. E. Curtis, Executive Officer (Goods), Railway Executive, who, as recorded in our October 9 issue, has been appointed District Goods Superintendent, Broad Street, London Midland Region, British Railways, was educated at Oakham School, and joined the L.N.W.R. as a probationer in 1917. From 1917-19 he served as 2nd Lieutenant, R.F.A. After receiving training in the Goods, Traffic and Coaching Departments, he was appointed Dis-

trict Runner, Chester & Holyhead District, in 1923. He became Acting Outdoor Assistant, Bangor, in 1924. From 1929 to 1933 Mr. Curtis served in the Development and Research Sections, Chief Commercial Manager's Office, and then until 1938 on the Vice-President's personal staff. He was Goods Agent, Keighley, 1938-39, and, in September, 1939, he was seconded to the Ministry of Food, and served as Port Food Movement Officer, Liverpool. In 1942-43 he spent nine months in the U.S.A. as Assistant Director to advise the British Food Commission on transport problems. In 1944, Mr. Curtis returned to the L.M.S.R. as Assistant District Goods Manager, Warrington, and, in 1945, he was appointed Assistant to Chief Commercial Manager (Goods). He became District Goods Manager, Wolverhampton, in 1946, and was appointed Executive Officer (Goods), Railway Executive, in 1950.

Mr. Dermot W. Kent, B.A., A.C.A., has resigned from the board of the Igranic Electric Co. Ltd., in order to become Commercial Director of the company's associated firm, Sentinel (Shrewsbury) Limited.

Mr. J. A. Carter, Branch Manager of the Cambridge office of Deen & Dawson, has retired through ill health. Mr. Carter, who is 62, has been with his firm for 47 years and was Branch Manager of the Hull office for 22 years.

Mr. W. V. Binstead, A.M.Inst.W., who has been with the Northern Aluminium Co. Ltd. for 16 years, including 12 years as Welding & Joining Engineer in the company's Sales Development Division at Banbury, has taken up a similar appointment with the Saturn Oxygen group of companies.

Mr. W. E. Hardeman, Manager, Tyre Design Division, Dunlop Rubber Co. Ltd., has been appointed Chief Tyre Development Engineer. He will be succeeded as Manager of the Tyre Design Division by Mr. L. J. Lambourn, Chief Tyre Designer. Mr. E. S. Tompkins, Manager of the Product Performance Division, becomes Mr. Lambourn's Deputy Manager. He is

succeeded as Manager of the Tyre Performance Division by Mr. L. J. Mountford, Overseas Technical Adviser on Tyres.

Mr. Christopher Wilson has been appointed Assistant to the General Manager of the Machine Tool Trades Association.

Mr. Harald Peake, having been advised to curtail his business commitments, has resigned his directorship of the Westinghouse Brake & Signal Co. Ltd.

Mr. W. J. Wallace, Assistant Manager, Motor Manufacturers Department of C. C. Wakefield & Co. Ltd., has been appointed Manager of the department. Mr. H. W. Appleton becomes Divisional Manager.

Mr. L. H. Coney has been appointed Lubricants Co-ordinator, Shell-Mex & B.P. Ltd., responsible directly to the Company's General Sales Manager, Mr. A. M. Mackintosh.

We regret to record the death on October 20, at the age of 46, of Mr. J. H. Gresham, a Director of Gresham & Craven Limited and of Heatley & Gresham Limited. The cremation takes place today (Friday, October 23) at the Southern Cemetery, Manchester.

Thermotank Limited, Glasgow, announce the following appointments which are effective from October 1:—

Mr. D. D. Blackwood, Vice-Chairman, Mr. J. K. W. MacVicar, General Manager, Mr. G. B. Perry, Director, Engineering Division, Mr. A. McCutcheon, Director, Marine Installations, Mr. S. Fairweather, Director, Marine Design, and Mr. S. F. Jones, London Director.

At the meeting of the Managers' Conference held at the Irish Railway Clearing House, 5, Kildare Street, Dublin, on October 13, 1953, Mr. J. A. Clarke, General Manager, Ulster Transport Authority, was unanimously elected Chairman of the Conference for the year 1954.

Mr. V. Alford, formerly Chief Information Officer, Ministry of Civil Aviation, has been appointed Chief Information Officer of the Ministry of Transport & Civil Aviation. Following the merger of the Ministry of Transport with the Ministry of Civil Aviation, the address of the Information Branch of the combined Ministry of Transport & Civil Aviation, from October 22, 1953, will be Berkeley Square House, London, W.1, Telephone: MAYfair 9494.

The following extensions will be in use from that date:—

Press Officer (Transport) 2237
Press Officer (Civil Aviation) ... 3000

Institution of Mechanical Engineering

The following have become Associate Members of the Institution:—

Mr. D. G. Ainley, Gas Turbine Engineering Research, National Gas Turbine Establishment, Farnborough.

Mr. J. H. Barker, D. Napier & Son Limited.

Mr. J. Baron, Walker Bros. (Wigan) Limited.

Mr. E. Bretherick, Metropolitan-Vickers Electrical Co. Ltd.

Mr. W. I. Carlyle, Workington Iron & Steel Co. Ltd.

Mr. B. J. Gallagher, Coras Iompair Eireann.

Mr. J. W. Pollen, Harland & Wolff Limited.

Rebuilding of Barry Town Station

Work has started on the reconstruction of Barry Town Station, Western Region, as part of the plans for the improvement and modernisation of British Railways stations throughout the country.

The scheme, which should be completed by the end of next summer, necessitates the replacement by a brick structure of the existing timber buildings, and large windows mounted over coloured panels will present an attractive frontage to the new station.

Complete replanning of the interior will provide for light, airy waiting rooms decorated in modern style, with comfortable seats and chairs. A ticket office will open from the booking hall and a separate inquiry office will have direct access from the station forecourt.

A glazed canopy over the platform will provide access under cover to all rooms. A refreshment room equipped on modern lines is incorporated in the scheme. The whole of the premises will be centrally heated.

The contractors for the works are F. Holcombe & Sons Limited, Cardiff.

Luncheon to Sir Michael Barrington-Ward

An informal luncheon was given recently at the Great Northern Hotel, Kings Cross, by some of his former colleagues who were operating officers of the Southern Area of the L.N.E.R., to Sir Michael Barrington-Ward who retired on October 1 as a Member of the Railway Executive, and was formerly Superintendent (Western Section), Southern Area, L.N.E.R. The illustration below shows:

Standing (left to right) Messrs. C. Hartman, District Operating Superintendent, Lincoln, Eastern Region; G. W. Stewart, General Assistant to Chief Regional Manager, Eastern Region; G. Fiennes, Assistant Divisional Operating Superintendent (Eastern), Eastern Region; H. Few, District Operating Superintendent, Stratford, Eastern Region; F. C. Margetts, Assistant Operating Superintendent, Scottish Region; H. C. Johnson, Divisional Operating Superintendent (Western), Eastern Region; I. G. MacGregor, District Operating Superintendent, Darlington, North Eastern

Region; A. R. Dunbar, Divisional Operating Superintendent (Eastern), Eastern Region; E. J. Vipond, Assistant to Operating Superintendent, Eastern and North Eastern Regions; and E. J. Stephens, District Operating Superintendent, Doncaster, Eastern Region.

Seated (left to right) Messrs. F. Probert, District Operating Superintendent, Nottingham, Eastern Region; H. F. Pallant, Divisional Operating Superintendent, Crewe, London Midland Region; W. E. Green, District Operating Superintendent, Kings Cross, Eastern Region; Sir Michael Barrington-Ward; Messrs. J. Royston, Assistant Divisional Operating Superintendent (Western), Eastern Region; E. W. Rostern, Operating Superintendent, Eastern and North Eastern Regions; and A. E. H. Brown, Chief Docks Manager, South Wales Docks, Docks & Inland Waterways.

Passenger Traffic Developments in Turkey

(Concluded from page 464)

in connection with the "Simplon-Orient Express."

(b) Diesel service, consisting of two 1,000-h.p. three-car M.A.N. diesel-electric units, including buffet accommodation, Haydarpasa to Ankara, covers the 360 miles in 8 hr. 48 min.

(c) "Anatolia Express," Haydarpasa to Ankara, consisting of ordinary coaches and Wagons-Lits sleeping cars, and taking 14 hr. 5 min.

(d) "Güney Express," to Elâzığ and Kurtalan, consisting of Wagons-Lits sleeping cars and ordinary coaches. This train runs once weekly, with a service in the opposite direction.

A number of other main-line services in Turkey-in-Asia are operated by the M.A.N. diesel sets. The main-line steam trains referred to are worked by 2-8-2 and 2-10-0 type locomotives, sleeping and restaurant cars of the Cie Internationale des Wagons-Lits and Turkish State Railways coaches of all three classes. The locomotives and coaches of the Turkish State Railways bear the initials "T.C.D.D." of the administration with a star and crescent.



Sir Michael Barrington-Ward and former colleagues in the operating department of the Southern Area of the L.N.E.R.

Ministry of Transport Accident Report

Bradford Forster Square, May 20, 1953 :
British Railways, North Eastern Region

Colonel D. McMullen, Inspecting Officer of Railways, Ministry of Transport, inquired into the accident which occurred at about 8.23 a.m. on May 20, 1953, at Forster Square Station, Bradford, when a train of six empty coaches, drawn by a 2-6-2 tank shunting engine, running bunker first, came out of platform 4 against the starting signal at danger and collided side-long with the 7.15 passenger train, Skipton to Bradford, via Ilkley, consisting of 4 coaches, drawn by a tender engine, which was entering platform 5 under clear signals. The empty vehicles had formed the 7.20 train from Skipton via Keighley, which arrived at 8.10. The combined speed was about 25 m.p.h. and the shunting engine tore out the sides of the leading and second coaches, all compartments and seats in which were destroyed. The leading end of the third coach also was demolished and the engine came to rest embedded in its third compartment. Before starting with the empty coaches the

was usually done after the arrival of the train in platform 5, but occasionally before. He knew that the driver was aware of the movement to be made and was surprised when the speed did not slacken. The fireman happening to look out, he signalled him to stop and dashed towards the centre brake compartment, but failed to reach it before the collision. The driver had spoken to him for a few moments before the coupling up about going for his holiday in Switzerland.

The shunting engine driver said he approached platform 4 from the west departure line and picked up the shunter soon after passing the signalbox. About 6 to 7 min. after coupling up the fireman gave him the signal to move, using the words "right for back, mate." The brakes were off and, without turning his head in the direction of the starting signal, he opened the regulator as if to pull the stock right away from the platform. He had practically reached the signal when the

The fireman, aged nearly 18, began as cleaner in August, 1951, and said that when he told the driver they were ready to shunt he thought he used the words "right away," after which he attended to the damper and looked back to see if the shunter had jumped aboard. Seeing him giving a signal to stop he shouted. He had not looked in the direction of the fixed signal at all and thought the driver was drawing up to it. While waiting to back in from the west departure line the driver had talked about his holiday but there had been no conversation between them while standing in the platform.

Inspecting Officer's Conclusions

This accident was due entirely to the failure of the shunting engine driver, who failed to look at all in the direction in which the movement was proceeding. He was not concentrating his mind on his work and had allowed it to become occupied by other matters. He is 57 and been

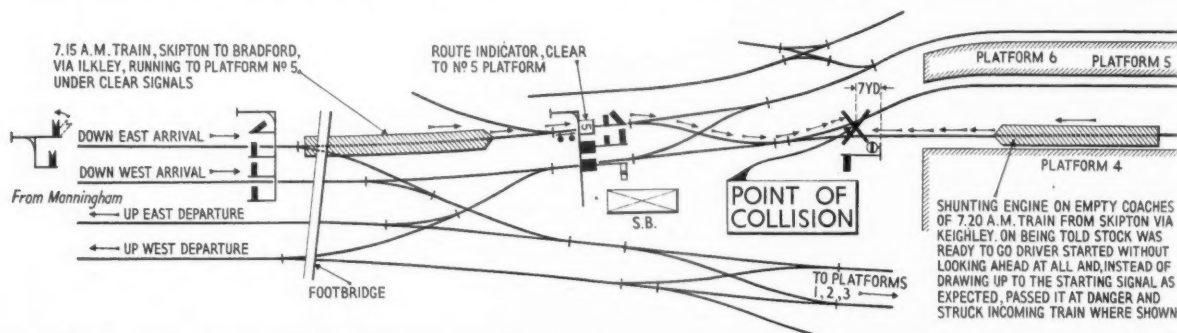


Diagram showing circumstances of accident at Forster Square Station, Bradford, North Eastern Region, May 20, 1953

engine had been standing about 80 yd. from the starting signal, which was clearly to be seen from both sides of the footplate for the full length of the platform. One passenger was killed and 14 injured, two seriously; these last were detained in hospital. The weather was fine.

The accompanying diagram shows the lines, signals, etc., concerned in the case.

Course of Events and Evidence

The signals to platform 5 were cleared for the incoming train when it left the station in rear at 8.20 and it passed the signalbox at the normal speed of about 15 m.p.h. Approaching the platform the driver saw the shunting engine moving and realised it would pass the starting signal. He made a full brake application and stopped in about 40 yd.

The head passenger shunter coupled the shunting engine and connected the vacuum pipes at about 8.15, the engine that brought the train in having been detached by the platform staff. He was standing near watching the unloading of the rear two vans and, when that was completed, intimated to the fireman that the stock was ready for shunting. He made his way towards the brake van at the other end of the train and the driver started. He thought he was drawing up to the starting signal, that being the general practice in such circumstances, as it "gave the signalman a better chance of making the move." This

fireman shouted. He had been cleaning the engine cab and was wiping the boiler when the fireman gave him the signal and was not then talking or studying anything. The only reason he could give for his failure was that he might have been thinking about his holiday and Union matters. He was local representative of the Associated Society of Locomotive Engineers and Firemen and was considering the question of making over his papers. That work did not take up much spare time and consisted mainly of distributing circulars and collecting contributions. He had no home worries and seldom went out, preferring to spend his time there. He slept well before walking to the shed (about 5 miles) which was not tiring being mainly down hill. Walking home, however, when no public transport was running, did tire him sometimes. He was feeling quite well. He suffered from arthritis of the spine and had some two years ago been fitted with a surgical support. His back was sometimes painful but had not hurt him for some weeks before the accident.

He was examined medically at Colonel McMullen's request, who received from the Medical Officer of the North Eastern Region at Leeds a report that no physical defect could be found which would account for the driver's failure to observe the signal, while the fact that he wore a surgical support for a past attack of spinal arthritis could have no bearing on that.

qualified as driver for nearly 30 years; since 1945 he has had a clear record. He gave his evidence very frankly.

The fireman was doing what was required of him but also should have looked at the starting signal. The speed must have reached 10 to 12 m.p.h. when the engine was approaching it, by which time it had been moving for 20 to 25 sec. Colonel McMullen is unable therefore to accept the fireman's contention that he thought the driver was drawing up to the signal.

Remarks

This is another instance of a driver starting from a platform against the signal at danger. The last case of a formal inquiry into this was that at Newcastle Central (see *The Railway Gazette*, April 11, 1952, page 414) which was attended with fatalities. Lt-Colonel G. R. S. Wilson then remarked that it was the seventh such case in three years. The present one would have been prevented by facing trap points for which there is ample room, and the regularity of this movement and the fact that drivers habitually draw up to the signal, close to the fouling point, is an argument for such. If considered necessary here, however, they should be provided at a large number of similar layouts and all single line crossing stations. As stated in his report on the collision at Dalguise, Scottish Region, on August 1, 1951 (see *The Railway Gazette*, December 28, 1951,

page 721), Colonel McMullen does not consider that the expenditure of labour and materials for such a scheme can be justified in present circumstances.

It is fundamental that safety must depend on the self discipline of drivers in observing signals before starting a train. The need for this is all the greater when something of importance is impending in the driver's life. The trip to Switzerland was an important event, and this driver allowed it to distract his attention from his duty.

(Forster Square Station, Bradford, is now in the North Eastern Region, but remains in the operating area of the London Midland Region.)

Courtesy Campaign on Indian Railways

Indian railwaymen observed a "Courtesy Week" starting on October 2, the anniversary of the birth of Mr. M. K. Gandhi. This was the second all-India drive for promoting politeness on the railways, the first one having been made in March of this year.

While the Railway Board issued a general directive that railways should make every effort in a campaign to build up goodwill among their clientele, the details were left to the General Managers of the six major railways. The pattern of the campaign, therefore, provided a wide variety of methods.

The Northern Railway, for instance, advocated use of the suffix *ji* to soothe tempers and improve relations between the public and the railwaymen. This word literally means "Sir," but in common usage it does not in any way humble the user and is widely employed as a symbol of politeness not

only between equals, but also between persons belonging to different stations in life.

The Central Railway used loudspeakers at a busy station to greet all morning travellers, and adopted as an official motto for the staff "Manners maketh a man, more so the railwayman."

A list of "seven commandments" was drawn up for the seven days of the courtesy week by some administrations. These enjoin the staff: to wear a smile; go out of their way to help a customer; not to point to his error; to make liberal use of polite expressions; take a genuine interest in redressing the complaints of passengers and others; and to be firm, but not rude, with offenders.

After the March campaign, the General Manager of one Railway was able to report to the Railway Board that as a result of the courtesy campaign, the public was reciprocating by showing greater courtesy to railway staff.

Third Class Passengers

A special target of the railwaymen's courtesy was the third class passenger, who constitutes more than 90 per cent of travellers. The Railway Board had enjoined that these valued customers should receive the most courteous treatment, sympathy, and consideration, and that prompt notice be taken of their complaints and requirements. Railway employees answering telephone calls from the public were instructed to be more than usually polite in conversation. Courtesy, it was stated, lubricates the vast and complex railway machinery quite as effectively as oil.

The courtesy week embraced all those whose duty entailed contact with the public, in the operating and commercial departments. Individual railways brought out special literature and posters designed to impress on their staff the importance of the campaign.

New Wind Tunnel at Derby

A new wind tunnel installed at Derby for the Research Department of British Railways was opened on October 19. The tunnel is somewhat octagonal in section, 4 ft. 6 in. x 3 ft. 6 in., and of the closed jet return type, operated by an air screw driven by a 50-h.p. motor which will draw air through the working section at varying speeds up to 100 m.p.h.

Mr. T. M. Herbert, Director of Research, British Railways, in requesting Dr. F. C. Johansen, Director of Research, Avery Research Administration Limited, to open the wind tunnel, said although the subject of streamlining was perhaps not as prominent as twenty years ago, there were many problems connected with railways, the solution of which could be materially assisted by the new wind tunnel, which he thought was the only one specifically built for railway use in the world. The use of wind tunnels was by no means new, as the first was built at Derby 20 years ago, and installed in the paint shop in the Derby Works, but later removed as the space was required for other uses.

Dr. Johansen praised the work of Mr. D. D. W. Peacock, Assistant Superintendent, Engineering Division, Research Department, and the skill which had gone into the making of the equipment. There were, he added, many problems for study connected with the railways which the wind tunnel would help to solve. It would assist railway scientists and designers in their research work over a very wide range of problems, such as dispersal of smoke and steam, improvement of ventilation of trains, stations and running sheds, and the design of draughtproof signal lamps.

Those present at the ceremony included:—Messrs. T. M. Herbert; E. Morgan, Assistant Director of Research;

Engineering Works in Kilsby Tunnel



Drainage and repair works in Kilsby Tunnel, near Rugby, on the L.M.R. main line from Euston to the North. The tunnel was opened in 1838, and has been closed to all traffic during the present month. (See article in our October 2 issue)

M. G. Bennett, Superintendent, Operational Research Division; D. S. M. Barrie, Department of the Chief Public Relations & Publicity Officer, British Transport Commission; J. W. Tonge, Assistant Public Relations & Publicity Officer, London Midland Region; L. P. Ball, Divisional Operating Superintendent, L.M.R., Derby.

Messrs. T. Baldwin, Superintendent, Engineering Division; L. B. Banks, Assistant Superintendent, Engineering Division; D. D. W. Peacock, Assistant Superintendent, Engineering Division (in charge of wind tunnel); F. Fancutt, Superintendent, Chemical Division; T. H. Turner, Superintendent, Metallurgy Division; T. A. Eames, Superintendent, Physics Division; and C. G. Winson, Superintendent, Textiles Division, British Transport Commission, Research Department, Derby.

L.M.R. and New Manchester Water Pipeline

The first stage in the scheme for an alternative water supply for Manchester from Haweswater is nearing completion. British Railways, London Midland Region, have delivered for the purpose since September, 1951, some 17,000 tons of pipes to sites near Kendal, Kirkby Lonsdale, and Hornby Stations. These pipes span a route from just north of Kendal to near Clitheroe, and the contract has involved the London Midland Region in considerable handling and cartage problems which have been satisfactorily overcome.

The steelwork consists mainly of bitumen covered pipes up to 29 ft. 6 in. long and 4 ft. dia., weighing $4\frac{1}{2}$ -5½ tons each, and of segments of steel plates. The segments, welded together on the site, forming a pipe 11 ft. dia., are used to carry the water through tunnels; special ramps had to be constructed by the contractors at various points in the section on to which the pipes had to be unloaded from the trailers. Some of the roads were narrow and steep, but deliveries have been maintained without any untoward incident.

The service of cartage involved journeys over difficult terrain to delivery points

situated up to ten miles from stations; to give the service required by contractors laying the pipeline, special vehicles and additional staff have been allocated to stations.

The larger pipes are coated internally and externally with a bituminous protection, necessitating exceptional precautions, both during handling and cartage operations; and to prevent damage, special type slings were used during discharge from wagon to cartage vehicle. It was necessary to equip the vehicles with special chocks of the same radius as the pipe to obviate damage during the journey to points of delivery.

Staff & Labour Matters

Railway Wage Claim

The hearing of the claim for a 15 per cent increase in rates of pay of railway salaried and conciliation staff will begin before the Railway Staff National Tribunal under the chairmanship of Sir John Forster, Q.C., on November 9.

Engineering Wages

Leaders of the C.S.E.U. are preparing a reply to the rejection by the employers of their claim for a 15 per cent increase in rates of pay for engineering workers. The two sides of the industry met on October 29. Meantime at a mass meeting in London on October 18 speakers explained that they wanted a wage increase from the large profits accruing to the industry. At meetings in various parts of the country there have been calls to renew the 1952 threat to ban overtime and piecework if demands are not met.

CLOSURE OF WALTON STATION.—British Railways, Eastern Region, announce that on and from December 7, 1953, Walton Station, near Peterborough, will be closed. Facilities for passengers and parcels traffic are available at Peterborough North and East and there are frequent bus services in operation between the Walton district and Peterborough town centre.

Contracts & Tenders

British Railways, Eastern Region, have placed a contract with British Insulated Callender's Construction Co. Ltd., Kirkby, near Liverpool, for preliminary improvements pending electrification, covering alterations to overhead equipment consequent on permanent way layout modifications at Stepney East, London, Tilbury & Southend Section.

British Railways, Eastern Region, have placed the undermentioned contracts:—

Wellerman Bros. Ltd., Sheffield: reconstruction of structure of Coleridge Road Overbridge No. 5 between Attercliffe Junction and Broughton Lane and of superstructure of underline bridge No. 18 between Stainforth and Thorne South

Tersons Limited, London, N.3: maintenance of permanent way in Peterborough District

British Railways, North Eastern Region, have placed contracts as follows:—

J. Dingwall & Son, Gateshead: erection of new signal box, and messroom at Howdon-on-Tyne and of new standard signalbox at Percy Main North

Taylor & Hubbard Limited, Leicester: two 15-ton steam p.w. cranes

Scottish Machine Tool Corporation Limited, Glasgow: guillotine plate shearing machine, Shildon Works

The Canadian National Railways have placed orders for 4,780 freight vehicles at a cost of \$37,590,000. They bring the value of undelivered equipment orders to \$114,483,600. The orders include 2,950 fifty-ton box cars; 210 seventy-ton longitudinal hopper wagons; 120 fifty-ton Hart convertible wagons; 100 thirty-ton flat wagons and 100 thirty-ton box cars for the Newfoundland District; 500 seventy-ton drop end high side gondola wagons; 300 seventy-ton triple hopper wagons; 200 seventy-ton covered hopper wagons; 100 seventy-ton flat wagons; and 200 seventy-ton high side gondola wagons. Companies sharing the orders are the National Steel Car Corporation, Canadian Car and Foundry Co. Ltd., Eastern Car Company, Marine Industries Limited, American Car & Foundry Limited, and General American Transportation Corporation.

British Railways, Western Region, have placed the following contracts:—

John Morgan (Builders) Limited, Cardiff: reconstruction of station buildings at Glyn Neath

General Electric Co. Ltd., Coventry: provision and installation of a three-channel carrier-telephone system between Swindon and Bristol and Bristol and Swansea

A. R. Rainey & Company, Weston-super-Mare: erection of a relay house and alterations to the signal box at Weston-super-Mare East

Willoughby (Plymouth) Limited, Plymouth: work to be performed in connection with the overhaul and survey of ss. *Sir Francis Drake* and ss. *Sir Richard Grenville*

Parsons & Morrin Limited, Birmingham, 5: conversion of the grill room at Birmingham Snow Hill Station into control offices

Fairfield Shipbuilding & Engineering Co. Ltd., Chepstow: reconstruction of the gantry, land side crane rail and roofing and the renewal of the quay-side crane rail at Fishguard Harbour; supply of steelwork for the reconstruction of the bridge under the line near Bransford Road Station

Mr. D. T. Jones, Welshpool: prefabrication and erection of timber permanent way huts at various sites in the Gloucester and Shrewsbury Districts



Handling pipes at Kirkby Lonsdale, for new water supply for Manchester

Kendall & Gent Limited, Manchester, 18: supply of one vertical milling machine, Swindon Locomotive Works

Butler Machine Tool Co. Ltd., Halifax: supply of one axlebox planing machine for Swindon Locomotive Works

J. E. Jones & Co. Ltd., Pontllanfraith, Newport, Mon: reconstruction of abutment and wing wall of underbridge near Sirhowy

The High Commissioner for India is asking for tenders for the supply of fog signals. Details appear under Official Notices on page 475.

The Special Register Information Service, Export Services Branch, Board of Trade, reports that the United Senior Trade Commissioner at Karachi has notified a call for tenders issued by the Department of Supply & Development, Metals & Hardware Directorate, Government of Pakistan, Karachi, for:—

288 tons rails, 75 lb. "R" B.S. flat-bottom, to be in standard lengths

12 tons fishplates for above rails
10,000 bearing plates, 9½ in. by 9 in., punched for dog spikes for old 1922 B.S. & 75 "R" flat bottom. Rails weight 13.69 lb. each, approximately

The closing date for receipt of tenders is 11 a.m. on October 26. Tenders should be addressed to the Department of Supply & Development, Metals & Hardware Directorate, Karachi. The stores are required immediately. Tenderers should, however, state the earliest possible date of delivery. Quotations in Pakistani currency should be for delivery C.I.F. Karachi for imported stores and F.O.R. station of despatch for available stores. One copy of the tender documents may be inspected in Room 801 at the Export Services Branch, Lacon House, Theobald's Road, W.C.1.

The Special Register Information Service, Export Services Branch, Board of Trade, reports that the United Kingdom Trade Commissioner at New Delhi has notified a call for tenders (No. SR2/18201-

D/1) issued by the Directorate General of Supplies & Disposals, Government of India, for the supply of the following:—

5 sets 50-lb. R(m.g.) turnout with 1 in 8½ crossing and 13 ft. 6 in. O.R. switch, complete with all fittings and leading and trailing stretcher bars

5 sets 50-lb. R(m.g.) turnout with 1 in 12 crossing and 18 ft. O.R. switch, complete with fittings and leading and trailing stretcher bars

3 sets 1 in 12 scissors crossover, 14 ft. 6 in. track centres, 60-lb. R., complete with all fittings

The closing date for receipt of tenders is October 27.

The stores are urgently required by the Assistant Controller of Stores, North Eastern Railway, Samastipur, and tenderers should submit quotations both inclusive and exclusive of the cost of rails. Tenders should be addressed to the Director General of Supplies & Disposals, Shahjahan Road, New Delhi, from whose office tender documents are obtainable at Rs. 7 a set.

The Director General of Supplies & Disposals, Railway Stores Directorate, New Delhi, is inviting tenders for:—

950 rings malleable cast iron piston packing Britimp patent with garter springs complete

Tenders are to be submitted to the Director General of Supplies & Disposals, Shahjahan Road (Section SRI), New Delhi, quoting reference SRI/16670-D/II and will be received up to November 5.

The Director General of Supplies & Disposals, Railway Stores Directorate, New Delhi, is inviting tenders for:—

300 axlebox (C.S.) 10 in. by 5 in. journal 7½ in. by 2½ in. guardways, back plates seam welded

Tenders are to be submitted to the Director General of Supplies & Disposals, Shahjahan Road (Section SRI), New Delhi, quoting reference SRI/16772-D/I and will be received up to November 17.

Notes and News

Assistants Required for Railway Civil Engineer's Office.—Applications are invited for the posts of assistants required for a railway civil engineer's office in London. See Official Notices on page 475.

The Railway Club: Annual Dinner.—The Annual Dinner of the Railway Club will be held this year on Friday, November 27, at the Danish Club, 62, Knightsbridge, London, S.W.1, at 7 p.m.

Civil Engineer Required.—Applications are invited for the post of civil engineer required as head of party on railway location surveys in West Africa. Candidates should be 35 to 45 years of age, but consideration would be given to others if specially qualified, and accustomed to bush life in the tropics. Tour approximately 18 months. See Official Notices on page 475.

Vacancies in the Railway Department, Nigeria.—The following vacancies exist in the Railway Department, Nigeria, for:—

District Superintendent, between 45 and 55 years of age, with not less than 15 years' experience of railway traffic operating, commercial practice, or locomotive running.

Assistant District Superintendent (Locomotive), not less than 35 years of age, and must possess A.M.I.Mech.E., or similar qualifications for pensionable appointment. Candidates must have served apprenticeship and pupilage in first class locomotive repair workshops with subsequent experience, and have had at least ten years on administrative duties.

Assistant Locomotive Superintendent, between 26 and 45 years of age, to assist the district superintendent (locomotive) in the general administration of a district.

Assistant Works Manager, between 26 and 45 years of age. Duties include supervision of the locomotive workshop, European and African shop foremen, and pro-

Visit of Mr. John Elliot to Wembley Park



(Left) Mr. John Elliot, Chairman, London Transport Executive, inspecting signalling apparatus at Wembley Park Station and (right) in Wembley Park Signalbox, accompanied by Mr. A. B. B. Valentine, Member, London Transport Executive

gress and inspection departments under the jurisdiction of the Works Manager.

For further details of these appointments see Official Notices on page 475.

Accident near Lyons.—On October 16, during fog, a light engine ran into the rear of a stationary workmen's train at Sérézin, South of Lyons. Ten passengers were killed or died as a result of injuries and some fifty were injured.

Disposal of Lord Street Station, Southport.—Negotiations are nearing completion for the sale by the British Transport Commission of Lord Street Station, Southport, to Ribble Motor Services Limited, which intends to convert it into a bus station. Lord Street Station, built in 1884 by the Cheshire Lines Committee, was closed last year.

Road Haulage and Denationalisation.—It was stated in error in the editorial article in last week's issue that Mr. G. W. Quick Smith in his paper "Road Haulage at the Crossroads" read to the Berkshire, Buckinghamshire and Oxfordshire Section of the Institute of Transport on September 28, "accepted" the belief that the increase in "C"-licence vehicles was due to the poor quality of the service given by nationalised road haulage. Mr. Quick Smith in fact questioned the accuracy of this belief.

Lintz Green Station to Close.—British Railways, North Eastern Region, announce that it is necessary to withdraw the services provided at Lintz Green station, near Newcastle, and to close the station to all traffic on and from November 2, 1953. Frequent bus services in the district are provided. Parcels and small consignments of freight traffic will be dealt with at Blaydon, from which station collection and delivery services will be provided.

E.C.A.F.E. Railway Sub-Committee.—The delegates who have been attending the meetings of the Railway Sub-Committee of the Economic Commission for Asia & the Far East were entertained to dinner at the Charing Cross Hotel on Friday last by the British Transport Commission. Mr. David Blee, Chief of Commercial Services, British Transport Commission, presided. He was supported by Mr. C. P. Hopkins, Chief Regional Manager, Southern

Region; Mr. J. W. Watkins, Chief Regional Manager, London Midland Region; Mr. J. L. Harrington, Chief Officer (Marine & Administration), British Transport Commission, and Mr. C. E. Whitworth. The names of the delegates were given in our last week's issue (page 441). Monsieur P. Ghilain, General Secretary, International Railway Congress Association, was also among the guests.

Coal, Iron, and Steel Traffic on British Railways.—British Railways carried 3,236,740 tons of deep-mined and open-cast coal during the week ended 6 a.m. on October 19, over 11,000 tons more than in the corresponding week last year. The weekend figure was 356,010 tons. During the week ended October 10, 220,654 tons of iron and steel from the principal steel works and 338,300 tons of iron ore were conveyed. Both figures represent an increase on the corresponding figures last year.

Institute of Transport, Beds., Cambs., & Hunts. Section: Annual Dinner.—The annual dinner of the Beds., Cambs., & Hunts. Section of the Institute of Transport, the first to be held since the Section was formed in 1949, was held in Cambridge on Wednesday, October 14. Mr. C. K. Bird, a vice-president of the Institute, and Chief Regional Manager, British Railways, Eastern Region, deputised for the President, Mr. John Elliot. Mr. J. W. Dedman, chairman of the Section, presided.

Presentation of B.E.M. by Chief Regional Manager.—Signalman John Martin, of Mistley, who was awarded the British Empire Medal in the 1953 Birthday Honours List for public services and services to the trades union movement, received the medal from Mr. C. K. Bird, Chief Regional Manager, Eastern Region, at Liverpool Street on October 14. When the original presentations were made by Mr. Alan Lennox-Boyd, Minister of Transport, in September, Mr. Martin was unable to be present. The duty of making the presentation was, therefore, delegated to Mr. Bird, who stated at the ceremony that he believed it was the first time that a railway officer had been called upon to deputise for H.M. The Queen and recalled that this particular medal was instituted by King George V in 1922. A letter from Her Majesty, conveying her congratula-

tions, was handed to Mr. Martin. The following officers of the Eastern Region were also present:—Messrs. A. J. White, Assistant Chief Regional Manager; E. W. Rostern, Operating Superintendent; M. B. Thomas, Public Relations & Publicity Officer; and G. W. Stewart, General Assistant to Chief Regional Manager.

Acrow (Engineers) Limited Final Dividend.—Despite increased profits for the year ended March 31, of £372,067, compared with the previous year's figure of £356,299, Acrow (Engineers) Limited has announced a limited final ordinary dividend of 10 per cent on the capital increased to £250,000 from £200,000 by an issue of fully paid shares. An interim dividend of 20 per cent already has been paid on the old capital. The limited dividend is in pursuance of the company's policy of paying out of their own resources for office extensions and the first stage of the No. 3 works urgently needed to cope with increased orders.

Interim Dividends of the British Electric Traction Co. Ltd.—The British Electric Traction Co. Ltd. has announced interim dividends for the year ending March 31, 1954, of 3 per cent actual, less income tax at the standard rate, on the 6 per cent cumulative participating preference stock, and of 4 per cent actual, less tax, on the 8 per cent non-cumulative preferred ordinary stock, the same rate as for the previous year in both cases, also of 15 per cent actual, less tax, on the deferred ordinary stocks, compared with 10 per cent for 1952-53. The dividends will be paid on December 12.

Aldershot & District Traction Co. Ltd.—At the annual general meeting of the Aldershot & District Traction Co. Ltd. on September 11, Mr. T. Robert Williams, Chairman, presided. The Chairman referred to a drop of some 1,500,000 (about three per cent) in the number of passengers, largely because of a rise in fares, which, however, had slightly increased revenue. Economy measures practised included a further reduction in unremunerative mileage and an improvement in fuel oil consumption. Co-operation with the Southern Region had enabled a railway bridge to be lifted to allow double-deck buses to be operated on a busy route.

Withdrawal of Passenger Trains from Swalwell Station.—British Railways, North Eastern Region, announce that it is necessary to withdraw the passenger train service at Swalwell Station and ordinary passenger trains will no longer stop there as from Monday, November 2. The station will continue to deal with freight traffic and excursions. Frequent bus services on the route between Newcastle and Consett/Blaydon are provided by the Northern General Transport Company and the Venture Transport Company. Parcels traffic will continue to be delivered from Blaydon and parcels for despatch may be handed in at Swalwell.

Sale of Road Haulage Assets.—The Road Haulage Association has commented on the B.T.C. plans for sale under the Transport Act, 1953, of nationalised road haulage assets described in our issue of October 16. The Association states that it had hoped that in offering the units for tender there would have been available a catalogue of, say, 20,000 vehicles with premises, before the selling commenced; in this way any interested party would have known at that stage exactly what was to be offered and could better have assessed his own requirements. "We have no alterna-



Arrival of E.C.A.F.E. delegates at Waterloo Station on October 16, where they were met by Mr. C. P. Hopkins, Chief Regional Manager, Southern Region (third from left)

OFFICIAL NOTICES

HER MAJESTY'S COLONIAL SERVICE

The engagement of persons answering Situations Vacant advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive, or a woman aged 18-59 inclusive unless he or she, or the employer, is excepted from the provisions of the Notification of Vacancies Order, 1952.

ASSISTANTS required for Railway Civil Engineer's Office in London. Applicants should be fully experienced in surveying and levelling and setting out work; have theoretical and practical knowledge of general schemes and estimates, structural design, contract documents, etc. Also experience in detailing and designing reinforced concrete. Salary range £600/700 dependent upon qualifications and experience. Five day week and Canteen facilities. Certain free and reduced rate rail travel after qualifying period. Apply in writing giving particulars of age, experience and qualifications to **THE CIVIL ENGINEER**, Eastern Region, King's Cross Station, London, N.1.

EXPERIENCED CIVIL ENGINEER required as Head of Party on Railway Location Surveys in West Africa. Normal age 35-45, but consideration will be given to others if specially qualified, healthy, active and accustomed to bush life in tropics. Tour approximately 18 months followed by 4½ months (or pro rata) full pay leave, with prospect of further engagement and possibility of employment on construction. Salary by arrangement; advertiser is willing to pay well for the right man. Applications to be by letter marked "Railways" mentioning the name of this paper and giving full particulars of age, qualifications and experience to **RENDEL, PALMER & TRITTON**, Consulting Engineers, 125, Victoria Street, Westminster, S.W.1.

RAILWAY MECHANICAL ENGINEER required by manufacturers of specialised equipment used in all types of motive power and rolling-stock. Training of approximately two years' duration would be given with a view to employment as sales engineer. Preference given to university graduate, under 30 years of age, who has served apprenticeship with a railway. Salary during training approximately £550, depending on qualifications.—Box 940, *The Railway Gazette*, 33, Tophill Street, London, S.W.1.

THE PERUVIAN CORPORATION have the following vacancies on the railways in Peru:—**CENTRAL RAILWAY, TRAFFIC LEARNER**. Single. Between 21 and 25 years of age. Good general education, with transportation experience either practical or theoretical. **ASSISTANT ENGINEER (CIVIL)** for Railway Drawing Office duties including Bridge and General Structural Steel Work Design, also Reinforced Concrete Structures. Must have sound technical training, preferably with previous railway experience. Age 30/35. A knowledge of the Spanish Language is preferable in both these appointments or willingness to learn within 6 months. Apply: **SECRETARY**, 144, Leadenhall Street, London, E.C.3.

BOUND VOLUMES.—We can arrange for readers' copies to be bound in full cloth at a charge of 25s. per volume, post free. Send your copies to the **SUBSCRIPTION DEPARTMENT**, Tophill Press Limited, 33, Tophill Street, London, S.W.1.

itive" it adds "but to accept the opinion of the Disposal Board that the programme now announced is the best which those in charge of the parcelling up can fulfil," and the hope is expressed of early further information on the tender forms and composition of the fleet of vehicles to be retained by the Commission.

Chamberlain Industries Limited: Stockists Appointed.—The mechanical engineering division of Chamberlain Industries Limited, which manufactures the "Staffa" range of bending machines, grinders, dust extractors, and lifting equipment, has appointed as stockists and distributors for Yorkshire, Lavite Limited, of Cleckheaton, a subsidiary of John Rigby & Sons, who specialise in chain annealing, repairing, and testing. Lavite Limited will handle all enquiries for "Staffa" products in its area and arrange for demonstrations if required.

United States Synthetic Rubber Plants: Possible Disposal.—Mr. John H. Lord, a director of the Dunlop Rubber Co. Ltd., retiring president of the Federation of British Rubber Manufacturers' Associations, stated recently that the intention of the U.S.A. Government to submit to Congress a plan for the disposal of its synthetic rubber plants to private industry,

has led to much speculation about the future of synthetic rubbers. From all accounts, he comments, the withdrawal of the American Government from the synthetic industry should not impair, and may well improve, the competitive position of the natural commodity. But this can also carry with it the danger of complacency as to actual supplies of synthetic rubbers for industry in Britain. A survey of synthetic rubber manufacture, whether actually in being or planned, shows how far other industrial countries have progressed compared with Britain.

THE following vacancies exist in the Railway Department, Nigeria.
District Superintendent (CDE 110/14/017). Appointment either pensionable or on contract at fixed salary of £1,500 p.a. with addition up to 20 per cent for contract appointment. An expatriation allowance of £350 p.a. is also payable. Candidates should be between the ages of 35 and 55 years, and must have not less than 15 years experience of Railway Traffic Operating, Commercial practice or locomotive running. They must have held positions of substantial responsibility and be capable of controlling a large staff and negotiating with Trade Unions. Preference will be given to candidates who have been trained as special apprentices on a recognised first class Railway or who possess equivalent technical qualifications, e.g. A.M.Inst.E., A.M.I. Mech.E., etc. They will be required to produce evidence of competency in Railway Rules and Regulations, Train Signalling, Railway Law, Economics, Statistics, etc.

Assistant District Superintendent (Locomotive) (CDE 110/14/010)

Duties include responsibility to the District Superintendent for the direction and efficient maintenance and working of the Locomotive Running Section. Appointment either pensionable or on contract at a fixed salary of £1,435 p.a. with addition up to 20 per cent for contract appointment. An expatriation allowance of £300 p.a. is also payable. Candidates should be not less than 35 years and must possess A.M.I. Mech.E. or similar qualification for pensionable appointment. For contract appointments the professional qualification may be waived if compensated by wide experience. Candidates must have served apprenticeship and pupillage in first class Locomotive Repair Workshop with subsequent experience, and have had at least 10 years on administrative duties in Locomotive Running Department. Drawing Office experience an advantage.

(a) **Assistant Locomotive Superintendent (CDE 110/14/03)**

(b) **Assistant Works Manager (CDE 110/14/02)**

Appointments are either pensionable or on contract in the scale £650 x 40-£1,290 p.a. with addition up to 20 per cent for contract appointment. An expatriation allowance varying between £180-£350 p.a. is also payable. Candidates for pensionable appointment should be between the ages of 26-45 years and be A.M.I. Mech. E. or have taken Parts A & B of the examination for Associate Membership and be prepared to qualify during probation. For contract appointments the professional qualification and age limit may be waived if compensated by wide experience.

(a) To assist the District Superintendent (Locomotive) in the general administration of a District. Responsible for maintenance of locomotives and inspection of steam pumps used in connection with water supplies. Candidates should have served an apprenticeship and pupillage in a first-class Locomotive Repair Workshop, and thereafter have had coupling and Running Shed experience, and have worked at least two years on administrative duties in a Locomotive Running Department. Drawing Office experience an advantage.

(b) Duties include supervision of the Locomotive Workshop, European and African Shop Foreman and progress and inspection Departments under the jurisdiction of the Works Manager. Candidates should have served an apprenticeship in a first-class Locomotive Workshop with at least two years sub-

sequent experience in the organisation and administration of a Railway Locomotive Workshop. They must have had drawing office experience and have a knowledge of modern progress on production methods.

On contract appointments a gratuity of £100-£150 per annum is payable on satisfactory completion of contract. Free first class passages for officer and his wife and an annual maintenance allowance or free passage allowance up to £75 each is payable in respect of a maximum of two children. Furnished quarters available at rental charge of 10 per cent of basic salary. Leave is granted at rate of seven days for each month of residential service after tour of 18-24 months. Opportunities for rapid promotion in the higher ranks of Nigerian Railways are good. The progressive growth of traffic and the wastage in senior posts due to normal retirements combine to give excellent opportunities for advancement to men of approved worth.

Apply in writing to the **DIRECTOR OF RECRUITMENT**, Colonial Office, Great Smith Street, London, S.W.1, giving briefly age, qualifications and experience. Mention the reference number shown against the post applied for.

FOR SALE: Platelayers Bogies for 4 ft. 8½ in. track-gauge in excellent condition. **M.E. ENGINEERING LIMITED**, 457 Finchley Road, London, N.W.3. Telephone: Hampstead 7481/7482/7483.

THE HIGH COMMISSIONER for India invites tenders for the supply of:—**DETONATING FOG SIGNALS**, to be in accordance with L.R.S. Specification No. Z-2-38 and I.S.D. Specification No. 100U, both of which will be attached to the tender form. Forms of tender may be obtained from the Director-General, India Store Department, 32/44 Edgware Road, London, W.2, at a fee of 10s. which is not returnable. Tenders are to be delivered by 2 p.m. on Friday, November 13, 1953. Please quote reference 73/53.

LOCOMOTIVE MAINTENANCE INSPECTORS required by the **NIGERIAN GOVERNMENT RAILWAY** for one tour of 18/24 months in the first instance. Salary etc. according to experience in scale £1,307 rising to £1,453 a year with gratuity of £150 a year. Outfit allowance £60. Free passages for officers and wives and assistance towards cost of children's passages or their maintenance in this country. Liberal leave on full salary. Candidates must have served 5 years railway apprenticeship followed by at least 10 years running shed experience and must have reached C.I.II Shed Master or C.I.II Mech. Foreman. Write to the **CROWN AGENTS**, 4, Millbank, London, S.W.1. State age, name in block letters, full qualifications and experience and quote M2C/30225/RA.

DRAFTSMEN with experience in the design of steam, diesel or electric locomotives. Applications from retired draughtsmen with the required experience will be considered. Apply in writing to **The Clayton Equipment Co. Ltd.**, 138 Borough High Street, London, S.E.1.

N.E.R. HISTORY.—Twenty-Five Years of the North Eastern Railway, 1898-1922. By R. Bell, C.B.E., Assistant General Manager, N.E.R. and L.N.E.R. Companies, 1922-1943. Full cloth. Cr. 8vo. 87 pages. 10s. 6d.—*The Railway Gazette*, 33 Tophill Street, London, S.W.1

awarded by the University Senate. The normal tenure will be five years, and the Fellow will be appointed initially for two years and then annually.

Crossley-Premier Engines: Lower Trading Profit.—Gross trading profit for the year ending April 30, announced by Crossley-Premier Engines, controlled by Crossley Bros. Ltd., is £118,629, plus other income, making £121,422, as against the previous year's figure of £149,349. Net profit, after depreciation, and tax, was £42,929, as against the previous year's figure of £51,315 and the ordinary dividend was 15 per cent. General reserve took £8,000 and plant replacement £20,000 and £127,817 was carried forward. Current Assets are £475,498 and liabilities £154,366 as against £507,878 and £191,882 respectively for the previous year.

Leopoldina Railway Distributions.—The liquidators of the Leopoldina Railway Co. Ltd., are to make an interim payment of £6 a £100 of stock to the preference stockholders and £2 6s. 10d. a £100 of stock to the ordinary stockholders of the company by way of return of capital on or after December 1 next. The liquidators will also distribute, on or after the same date, the sum of £331,307 to holders of the 4 per cent. terminable debentures.

This distribution represents a further payment of interest at 4 per cent per annum for the period from January 1, 1948, to June 30, 1949, on the 4 per cent debenture and the terminable debentures and will be subject to tax. The payment is the final distribution which will be made to such holders.

Forthcoming Meetings

- October 24 (Sat.).—Institute of Welding, South London Branch. Works visit to G. A. Harvey & Co. (London) Ltd., Greenwich. Party restricted to 40 persons.
- October 26 (Mon.).—Institute of Transport, Scottish Section, at 46, Bath Street, Glasgow, at 5.30 for 6 p.m. Discussion on the paper "The Framework of Public Transport," by Sir Reginald Wilson.
- October 27 (Tue.).—Stephenson Locomotive Society, Midland Area, at 71, Edmund Street, Birmingham, at 7.15 p.m. Ciné Film Show of railway scenes up to 25 years ago, by Mr. H. J. Stretton Ward.
- October 27 (Tue.).—Institute of Transport, Birmingham Graduate & Student Society, at the Chamber of Commerce, Birmingham, at 6.45 p.m. Paper on "Waterways—the Key to Britain's Industrial Wealth," by Mr. J. E. Oxley, Chairman of the Midland Section.
- October 27 (Tue.).—Institute of Transport, Newcastle Graduate & Student Society, at the Railway Literary Institute, Newcastle. Paper on "Road haulage and some of the accomplishments of the Road Haulage Executive," by Mr. T. Brooke-Davison.
- October 28 (Wed.).—Railway Students' Association, at the London School of Economics & Political Science, Houghton Street, Aldwych, W.C.2, at 6.30 p.m. Presidential Address by Mr. David Blee.
- October 28 (Wed.).—Institute of Welding, at the Park Lane Hotel, Piccadilly, London, W.1. Annual Dinner.
- October 29 (Thu.) at 10 a.m. and 2.30 p.m. and October 30 (Fri.) at 10 a.m.—Institute of Welding. Technical Meetings at the Institution of Structural Engineers, 11, Upper Belgrave Street, S.W.1.
- October 31 (Sat.).—Permanent Way Institution, Newcastle Section. Visit to York Station new automatic signalling system. Ladies invited.
- October 31 (Sat.).—Permanent Way Institution, East Anglia Section, at Ipswich, at 2.15 p.m. Paper on "The Purpose and Working of Self-Acting Inclines," by Mr. W. Youngs, North Eastern Region.
- October 31 (Sat.).—Royal Engineers' Association, London Group, Sapper Reunion at the Newington Public Hall, Walworth, S.E.17, at 7 p.m.
- November 2 (Mon.).—Institute of Transport, Metropolitan Section, at 80, Portland Place, London, W.1, at 5.30 for 6 p.m. Visit of the President of the Institute, Mr. John Elliot.
- November 3 (Tue.).—British Railways, Southern Region Lecture & Debating Society, at the Chapter House, St. Thomas Street, London Bridge, S.E.1, at 5.45 p.m. Members' Night.
- November 3 (Tue.).—Permanent Way Institution, Leeds & Bradford Section, in the British Railways Social & Re-

creational Club, Ellis Court, Leeds City North Station, at 7 p.m. Paper on "Woodhead Tunnel New Works," by Mr. J. D. Dempster.

November 3 (Tue.).—Institute of Transport, at the Connaught Rooms, Great Queen Street, London, W.C.2, at 12.30 for 1 p.m. Anniversary Luncheon.

November 4 (Wed.).—Permanent Way Institution, London Section, at the British Transport Commission Headquarters, 222, Marylebone Road, London, N.W.1, at 6.30 p.m. Illustrated paper, "How Branch Lines Might be Saved," by Mr. R. Shephard.

November 4 (Wed.).—Institute of Traffic Administration, London Centre, at the Kingsley Hotel, Southampton Street, London, W.C.2, at 7.15 p.m. Mr.

Gerald Nabarro, M.P., and Mr. Ernest Davies, M.P., debate "Can the present road and rail transport policy work?"

November 4 (Wed.).—Institute of Traffic Administration, Southampton Centre, at the Chamber of Commerce, at 7.30 p.m. Discussion.

November 6 (Fri.) to November 9 (Mon.).—At Ashridge, Berkhamsted, Herts. in conjunction with the Institute of Transport. Course No. 66, "The Changing Face of Transport." Opening address by Mr. John Elliot, President of the Institute of Transport.

November 6 (Fri.).—The Railway Club, at 57, Fetter Lane, London, E.C.4, at 7 p.m. Paper on "The Didcot Newbury & Southampton Railway," by Mr. T. B. Sands.

Railway Stock Market

International news had a restraining influence on stock markets earlier in the week, and values generally recorded small declines on balance. Caution by buyers rather than selling was the reason. There is a widespread tendency to take the view that, as British Funds are unlikely to go higher until the impending United Steel issue is out of the way, markets generally may not show a general advance for the time being. Holders of British Funds can, if they wish, exchange into United Steel shares at prices which will be announced by the time these notes are in print. A similar position will exist in regard to all the other important steel issues to be made from time to time; but the prices at which an exchange into steel shares can be made will, of course, depend on the general level of gilt-edged ruling just prior to the individual steel issues.

Apart from the United Steel offer, which is expected to be followed before the end of the year by others from Stewarts & Lloyds and Dorman Long, many large-sized industrial issues are to appear before long. Although most of these will probably be confined to shareholders, they will, of course, absorb a large volume of investment money, and also lead to a fair amount of selling of other securities by investors requiring money to take up new issues offered on attractive terms.

Foreign rails have been quiet and were inclined to move lower in the absence of demand. United of Havana stocks eased a little. The 4 per cent "A" and "B" were both 93, the second income stock, 37, and the consolidated stock 5½.

Antofagasta stocks have been steadier with the ordinary 8½ and the preference 44. Manila issues showed more activity; the "A" debentures were 83 and the preference shares 9s. 1½d.

There were buyers about for Dorada ordinary stock, which changed hands up to 55½. In other directions, Guayaquil & Quito 5 per cent bonds were dealt in around 40. Taltal shares marked 13s. 6d. and Nitrate Rails shares were 21s. 3d. Costa Rica ordinary stock transferred at 11½, and Chilian Northern 5 per cent debentures at 30.

Nyasaland Railway 3½ per cent debentures changed hands at 75½.

Mexican Central "A" debentures have been less active around 81. Brazil Rail bonds changed hands up to 7.

Canadian Pacifics have strengthened to \$44½; the 4 per cent preference stock was £69½, while the 4 per cent debentures moved fractionally higher at £86½. White Pass shares, however, were lower on

balance at \$26½, and the convertible debentures down to £96.

Midland of Western Australia stock marked 11.

Road transport shares kept firm, with Lancashire Transport 50s., Southdown 32s., and West Riding 37s. East Kent changed hands up to 27s. and Maidstone & District at 23s. A strong feature was an advance in B.E.T. 5s. deferred units to 34s. 3d. on the unexpected increase in the interim dividend, which has aroused market hopes that the year's total dividend may be at least 45 per cent.

The growing tendency to make moderate increases in dividends, which is a feature of company news, is of course an important influence on the more active conditions which have been in evidence in stock markets, particularly the industrial sections. Since the end of the war dividends generally have been very conservative, partly because rigid limitation of dividends was requested under the Labour Government. Now it is felt there is every reason to follow a more realistic policy and pay out a little more to shareholders. If investors are to be expected to provide additional finance for industry, they must have the inducement of the prospect of a higher dividend in a reasonably good year.

Recognising this trend, United Steel Companies are also modifying their very conservative dividend policy, and forecast 9 per cent, against 8 per cent. Based on a 9 per cent dividend, United Steel shares offer a yield of 7½ per cent at the price of 25s. at which they are being issued. This is regarded as attractive, even bearing in mind the possibility of renationalisation of steel threatened by the Labour Party. The City expects the United Steel issue to be a big success.

Vickers at 49s. 9d. have turned a little easier at the time of going to press. Guest Keen at 50s. 4½d. also reflected a little selling. Rather lower prices for a number of other engineering shares was attributed to selling by investors in order to provide money to take up United Steel shares.

Among locomotive builders and engineers, Beyer Peacock were 31s. 9d. with the new shares at a premium of 4s. 6d. The new shares are now 15s. paid. Hurst Nelson were 42s. and North British Locomotive 13s. 1½d. Birmingham Carriage moved higher at 29s. 9d., and Vulcan Foundry strengthened to 23s. Gloucester Wagon 10s. shares were 15s. 3d., Charles Roberts 5s. shares 17s. 1½d., and Wagon Repairs 5s. shares 15s. 3d.